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PART V

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UNSTEADY LOW-SPEED WINDTUNNEL TEST  
OF A STRAKED DELTA WING, OSCILLATING IN PITCH

PART V: POWER SPECTRAL DENSITY PLOTS OF THE OVERALL LOADS FOR  
HARMONIC OSCILLATION AND THE RESPONSE OF OVERALL LOADS  
TO (1-COS) INPUTS

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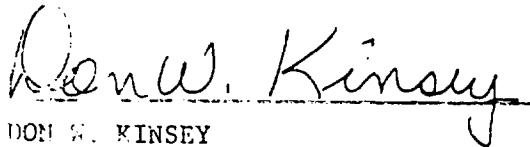
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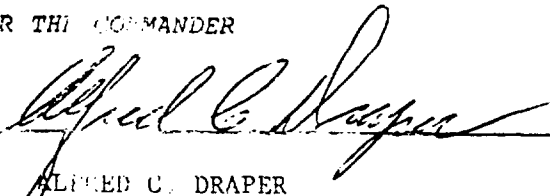


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<p>Results of a wind tunnel test of an oscillating straked wing. The report provides unsteady airloads and pressure distributions for a range of incidences (-8 to 50 deg.) and amplitudes (1 to 16 deg.). The wind speed was 80 meters/second, which provided reduced frequencies up to 0.50 based on root chord. The zeroth and first harmonic as well as the continuous time history of the pressure and overall loads were measured. Flow visualization was performed for flow of 30 meters/second using a pulsating laser light sheet.</p> <p>In this part V, the power spectral densities for various conditions are contained in appendix A to present the relative frequency content of selected overall loads at continuous oscillating model conditions ranging from nearly linear (first harmonic dominant) to highly nonlinear (many higher harmonics) characteristics. A survey of the selected runs and their test conditions is given in table 11 of part I including the components of the balance and the corresponding plot numbers of the spectra presented. (See Reverse)</p>					
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PART V: POWER SPECTRAL DENSITY PLOTS OF THE OVERALL LOADS FOR HARMONIC  
OSCILLATION AND THE RESPONSE OF OVERALL LOADS TO (1-COS) INPUTS

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Zwaan, R.J.,	"	"

19. ABSTRACT CONTD

*are given*  
Appendix B contains the time history plots of incidence and all air loads for (1-cos) pitch pulses that simulate transient aircraft maneuvers. Also included are half pulse data which represent a pitch-up and hold at a higher angle of attack as well as a pitch-down and hold at a lower angle of attack. A survey of the test conditions and their runnumbers is given in table 12 of part I. All (1-cos) pitch pulse runs were conducted three times and one of the three runs was chosen for presentation. To give an idea of the reproducibility plots for all three runs of the balance components vs. incidence for two test conditions are also enclosed at the end.

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## FOREWORD

This report summarizes the results of the windtunnel test of an oscillating straked wing conducted under a cooperative program of research between General Dynamics Fort Worth Division, Fort Worth, Texas, and the National Aerospace Laboratory (NLR), The Netherlands. The model and support system was designed and fabricated at NLR under a separate program with General Dynamics and NLR funding. The test preparation, wind-tunnel test and reporting were performed at NLR under Air Force Contract F33615-85-C-3013, for the Flight Dynamics Laboratory of the Air Force Wright Aeronautical Laboratories, Wright-Patterson Air Force Base, Ohio. The work was administered by Mr. D.W. Kinsey of the Aeromechanics Division (AFWAL/FIM). Additional technical monitoring support was provided by Mr. T. Cord of the Flight Control Division (AFWAL/FIG).

The program manager and principal investigator was Dr. A.M. Cunningham Jr. at General Dynamics and Mr. R.G. den Boer was the principal investigator at NLR. Mr. den Boer was assisted by the following NLR specialists: C.S.G. Dogger, E.G.M. Geurts, A.J. Persoon, A.P. Retèl and R.J. Zwaan.

This report consists of six parts. Part I presents a general description of the model and test program and a discussion of the results. Part II contains the steady pressure distribution plots and the major part of the zeroth and first order harmonic unsteady pressure distribution plots. Part III contains the remainder of the unsteady pressure distribution plots and plots of the steady and the zeroth and first order harmonic unsteady overall loads. Part IV contains time history plots of the unsteady pressures and overall loads. Part V contains power spectral density plots of the overall loads at harmonic oscillation and time history plots of overall loads for  $(1-\cos)$  model motions. Part VI contains results of the flow visualization program.

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LIST OF SYMBOLS

ALPHA, $\alpha$	wing incidence	(deg)
C <sub>l</sub>	wing rolling moment coefficient	
C <sub>m</sub>	wing pitching moment coefficient	
	ref. axis = rotation axis $x/c_r = 73.27\%$	
C <sub>n</sub>	wing yawing moment coefficient	
C <sub>N</sub>	wing normal force coefficient	
c <sub>r</sub>	root chord ( $c_r = 0.7855$ )	(m)
C <sub>T</sub>	wing tangential force coefficient	
C <sub>Y</sub>	wing side force coefficient	
DALPHA, $d\alpha$	harmonic oscillation: amplitude of unsteady wing incidence	(deg, rad)
	(1-cos) inputs: magnitude of wing incidence variation	
l	wing rolling moment (figure 1, part I)	(Nm)
m	wing pitching moment (figure 1, part I)	
	ref. axis $x/c_r = 73.27\%$	(Nm)
n	wing yawing moment (figure 1, part I)	(Nm)
N	wing normal force (figure 1, part I)	(Nm)
RUN	run number	
t	time	(s)
T	wing tangential force (figure 1, part I)	(N)
T	harmonic oscillation: period of one oscillation	(s)
	(1-cos) input: duration of (1-cos) input	(s)
Y	wing side force (figure 1, part I)	(N)

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$\alpha$ , ALPHA	wing incidence	(deg)
$d\alpha$ , DALPHA	harmonic oscillation: amplitude of unsteady wing incidence	(deg, rad)
	(1-cos) input: magnitude of wing incidence variation	

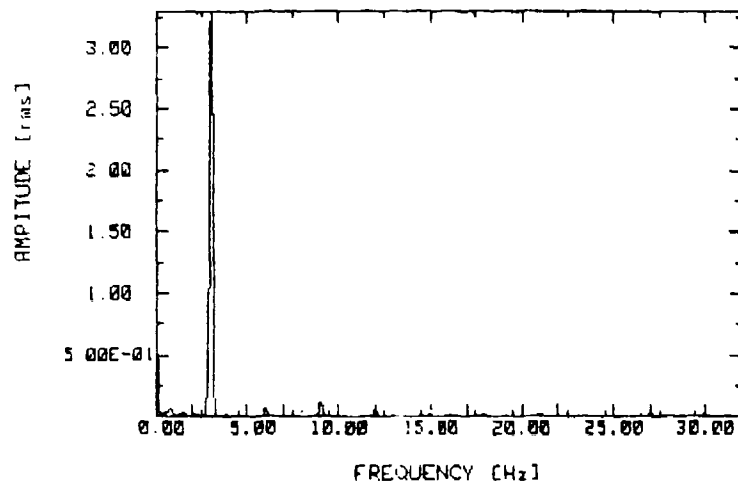
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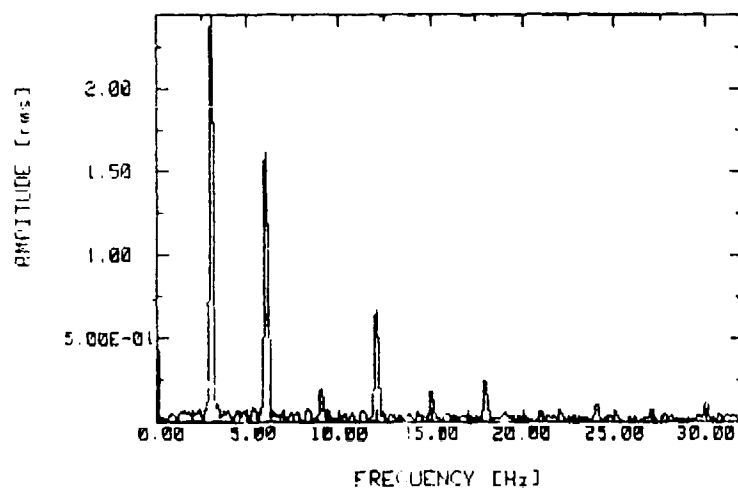
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POWER SPECTRAL DENSITY PLOTS OF OVERALL LOADS



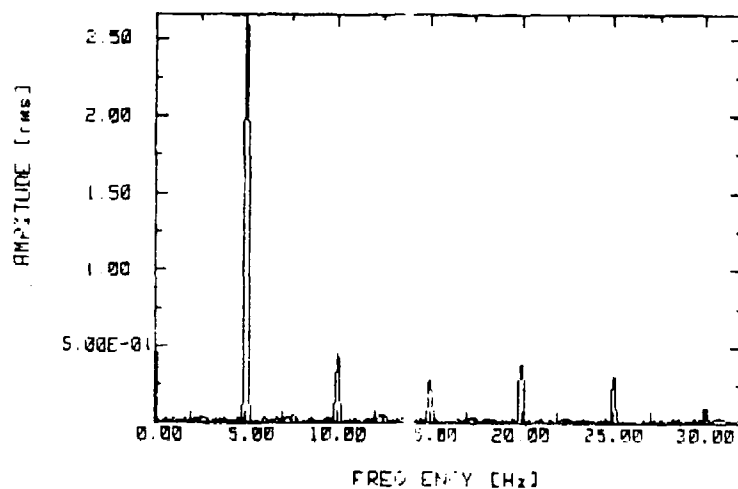
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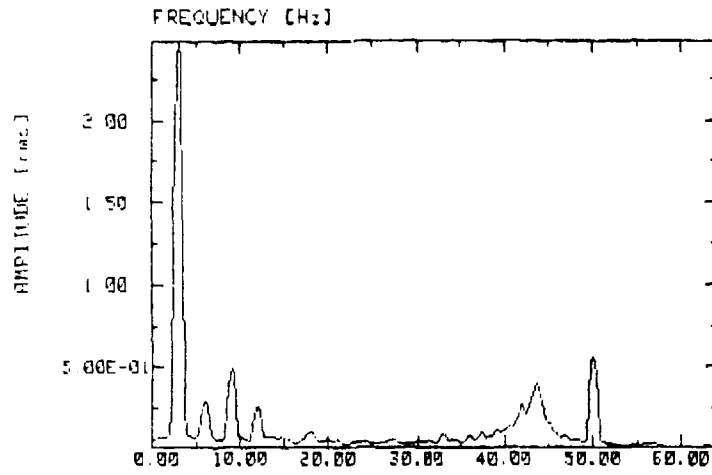


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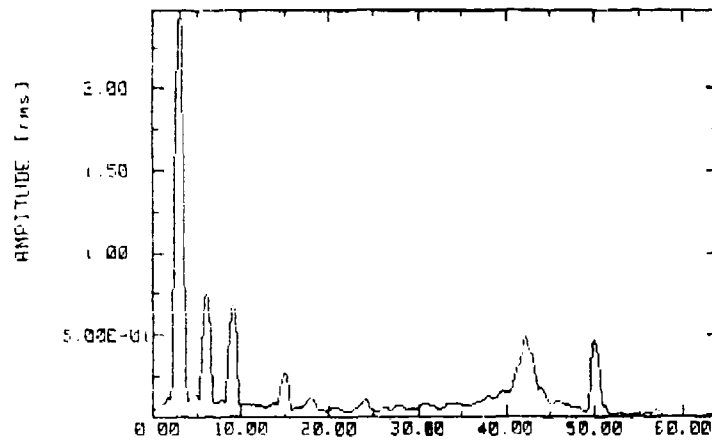


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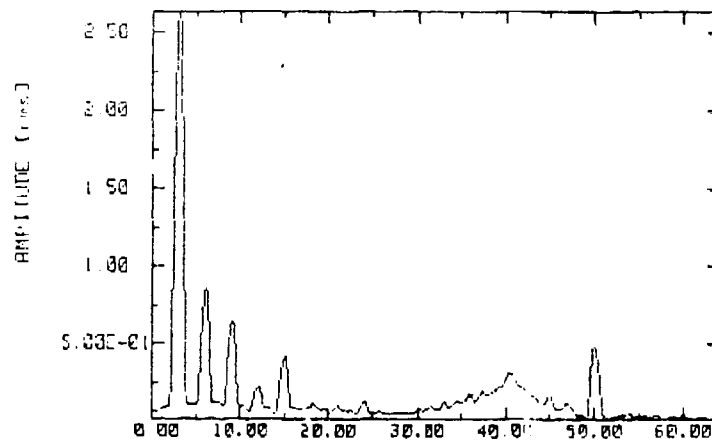




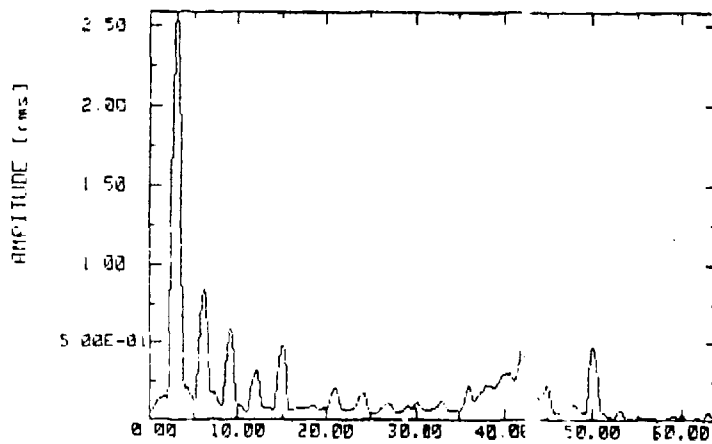
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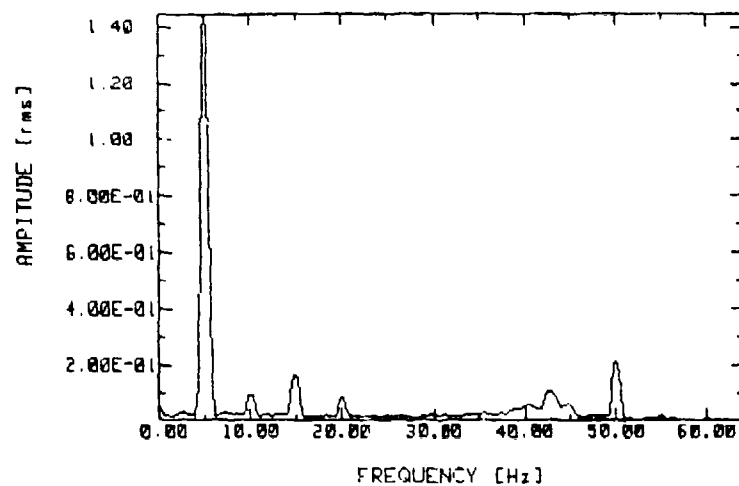
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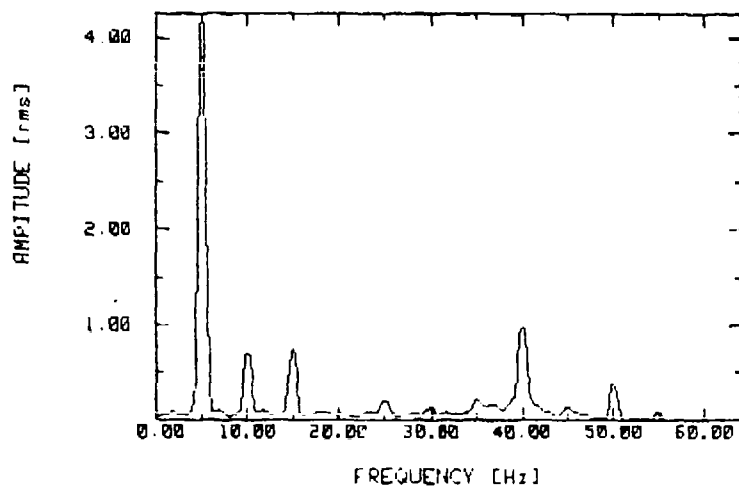
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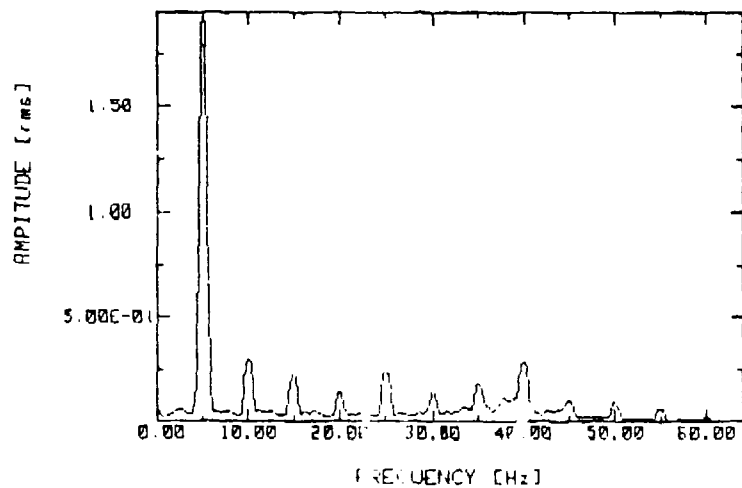
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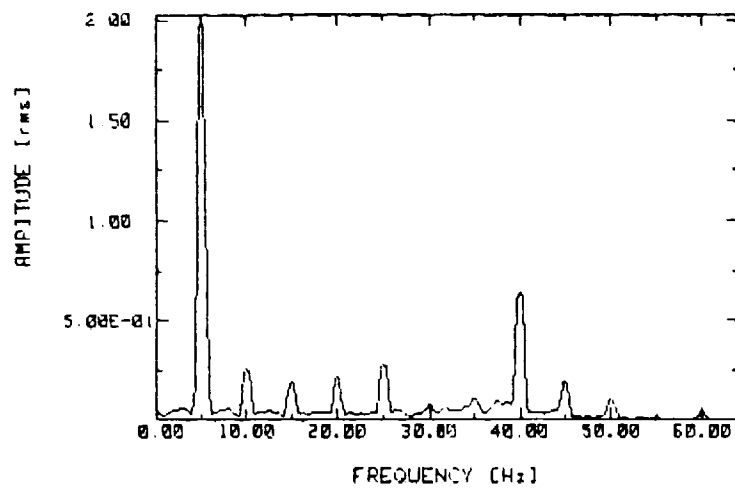
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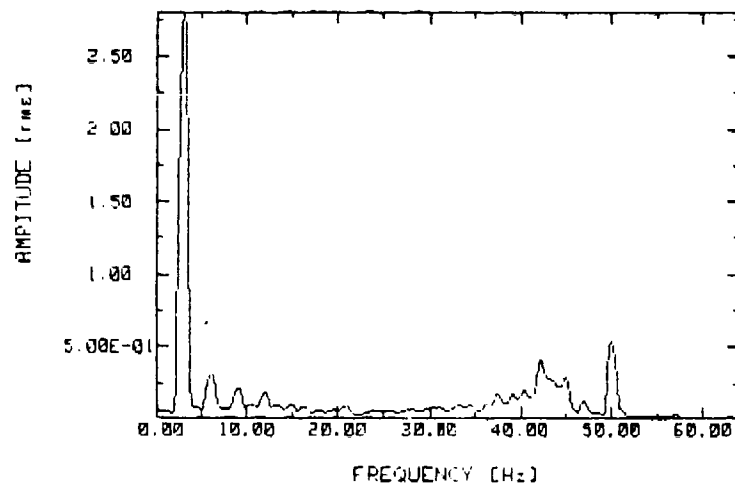
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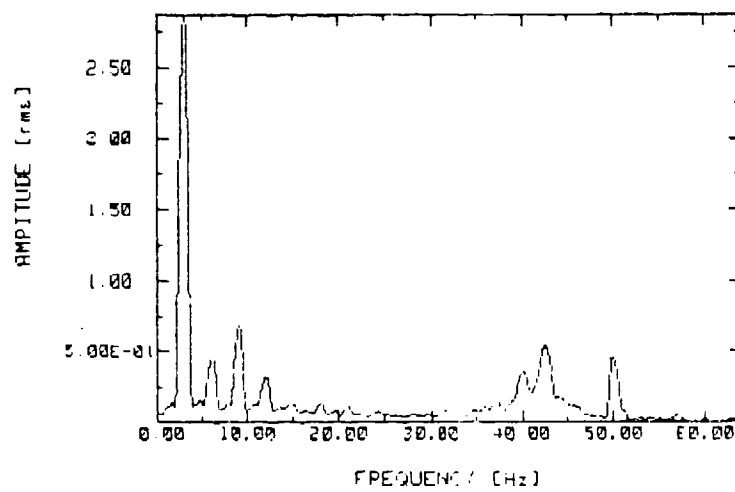
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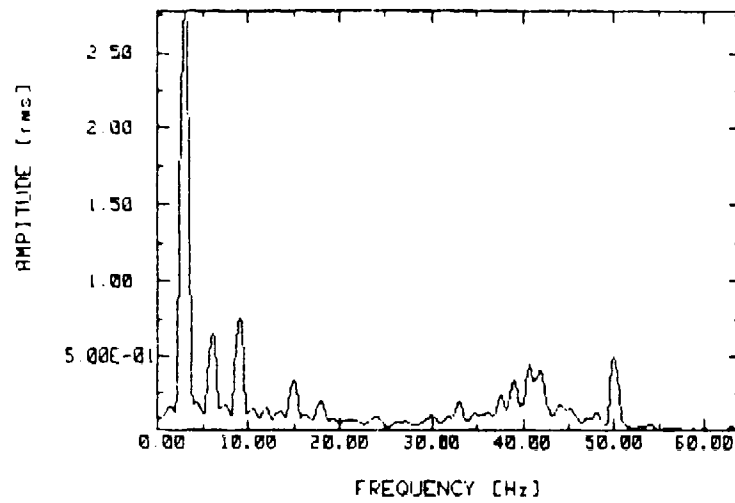
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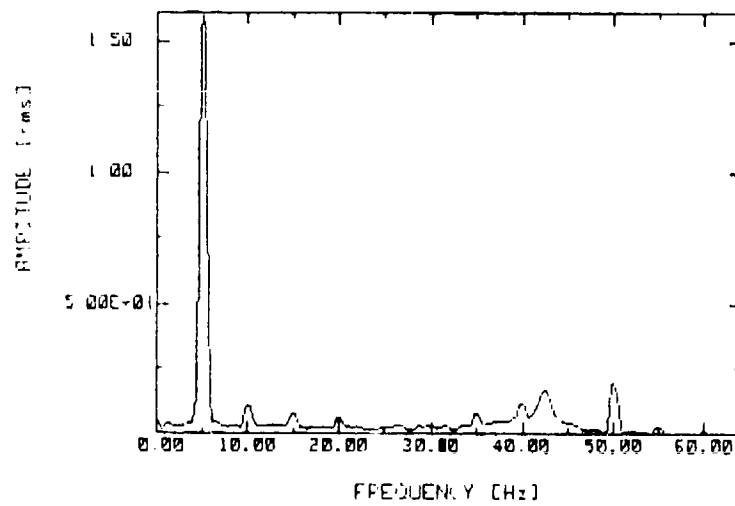
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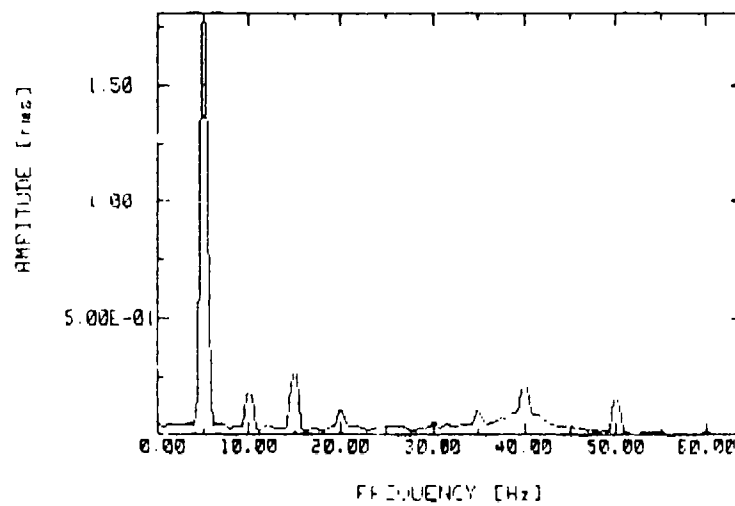
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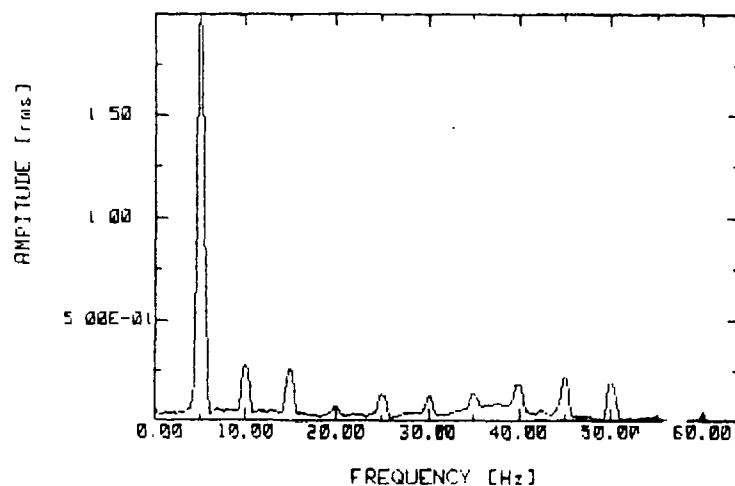
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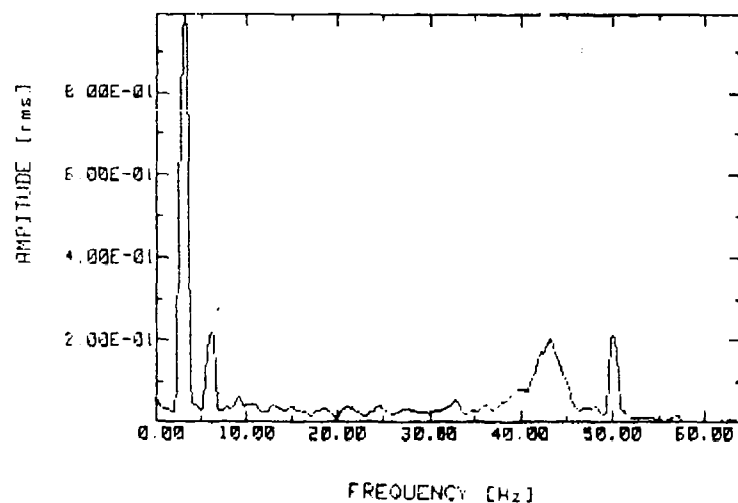
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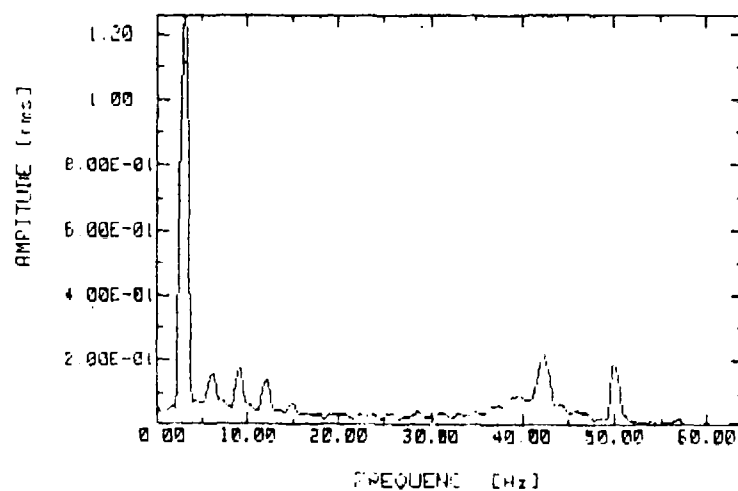
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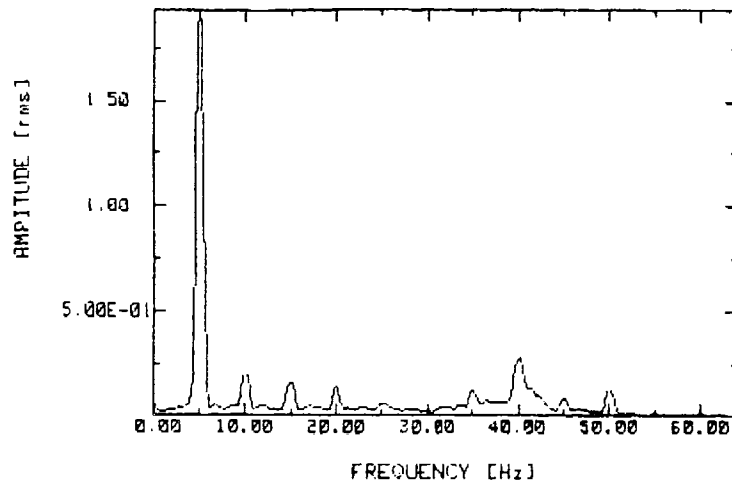
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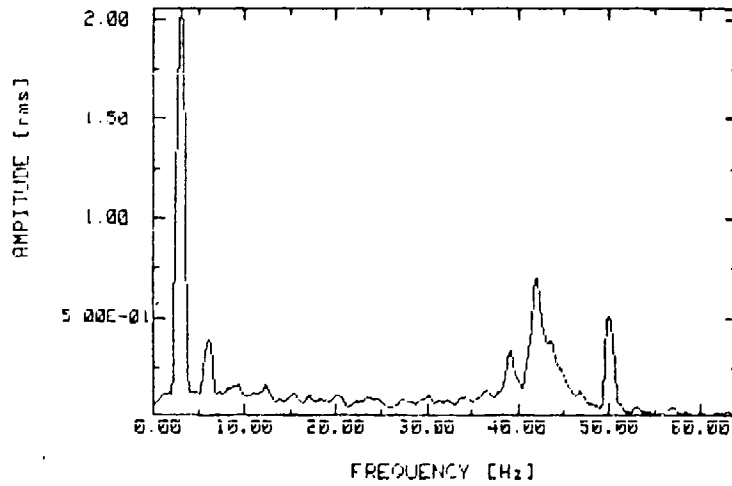
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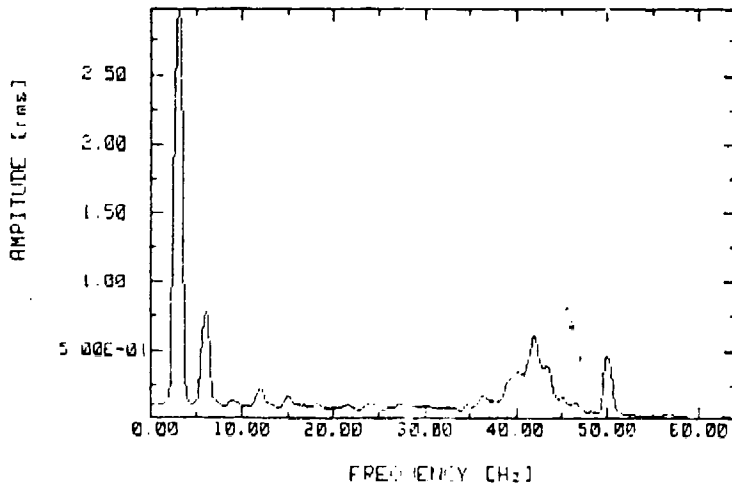
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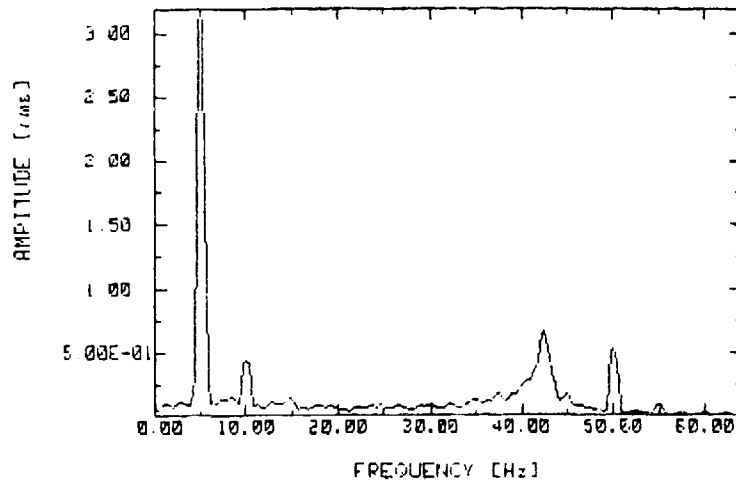
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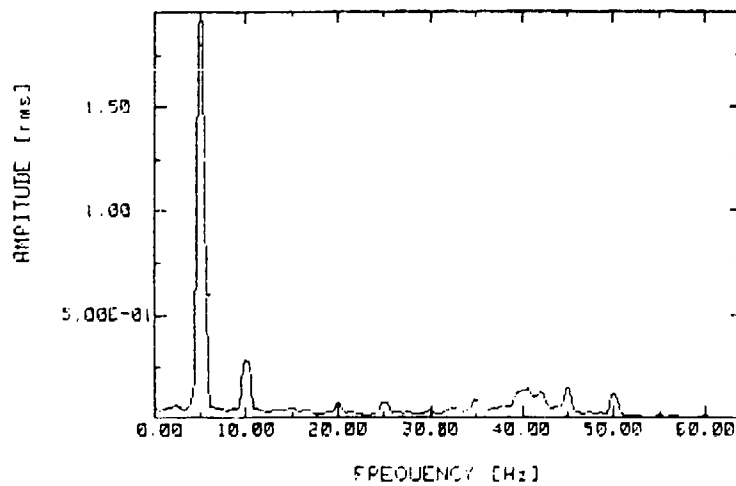
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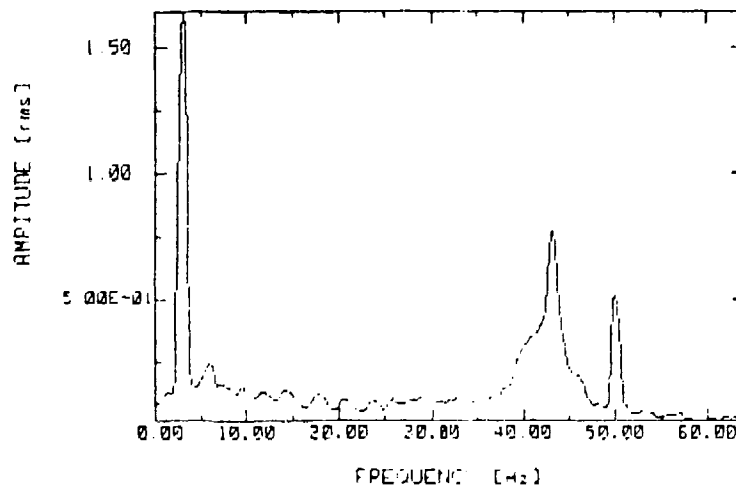
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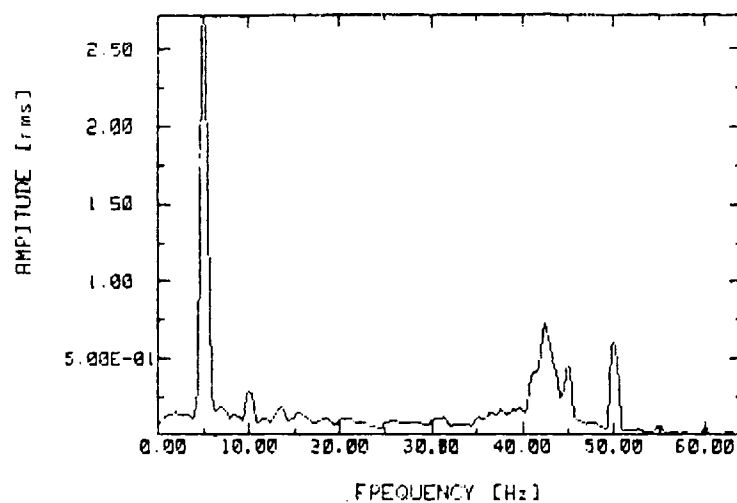
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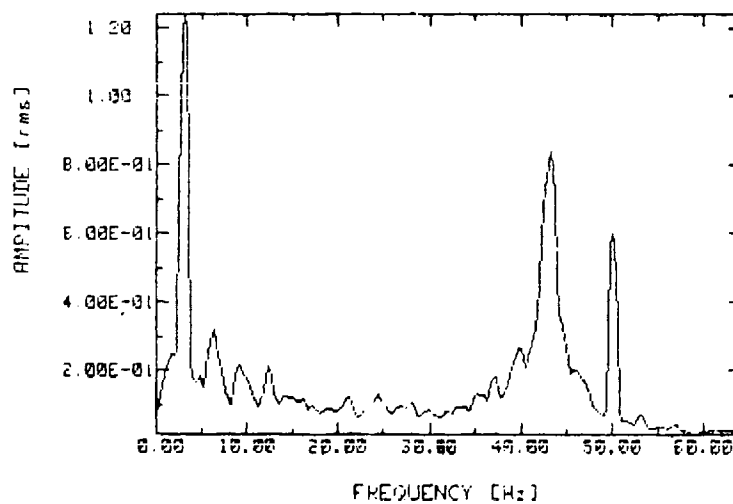
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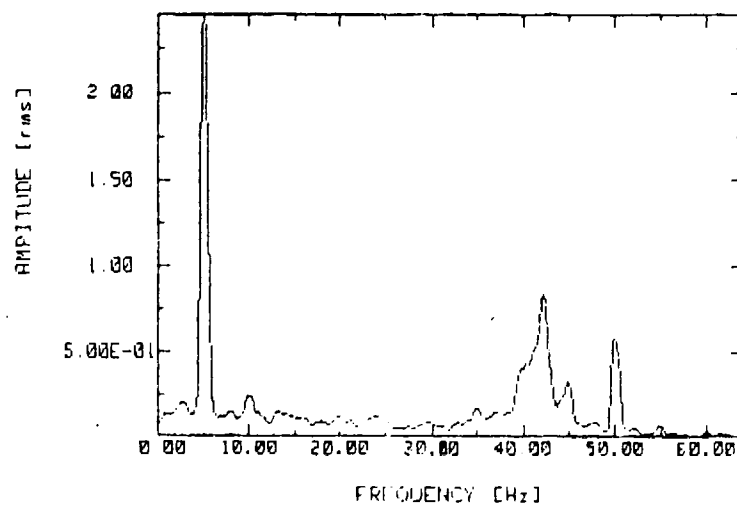
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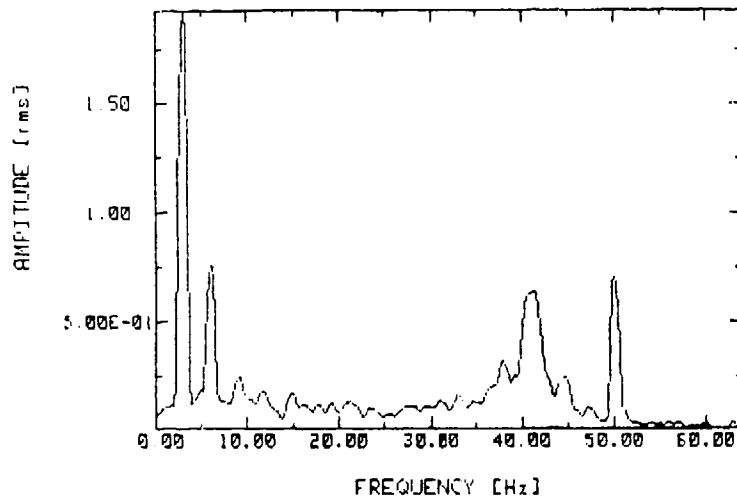
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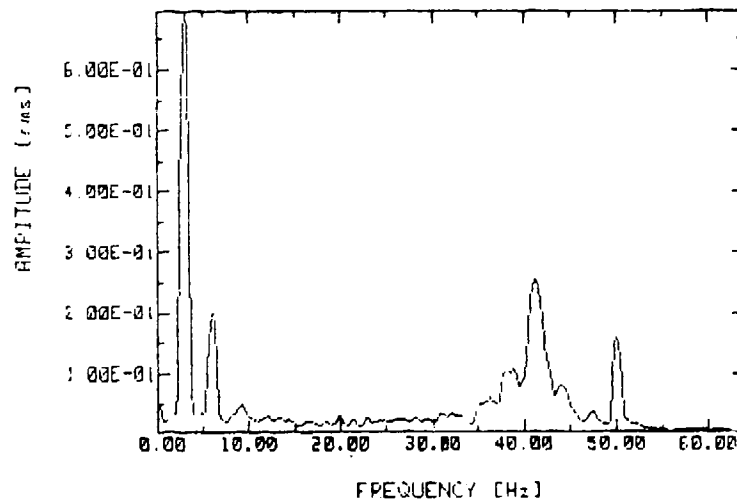
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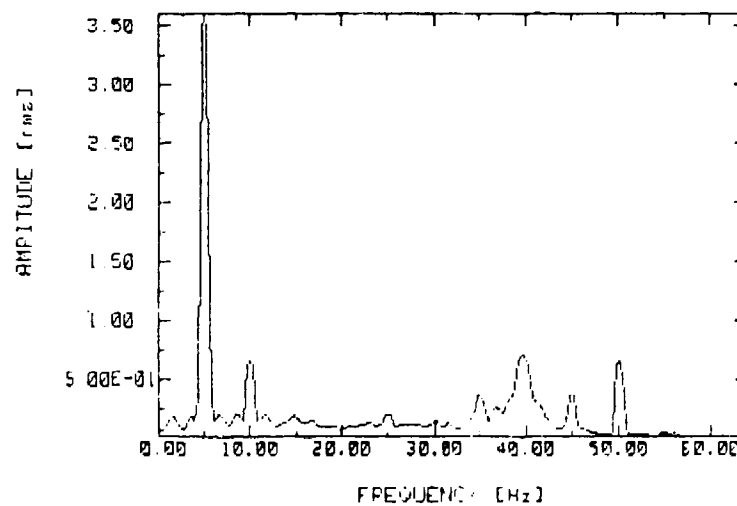
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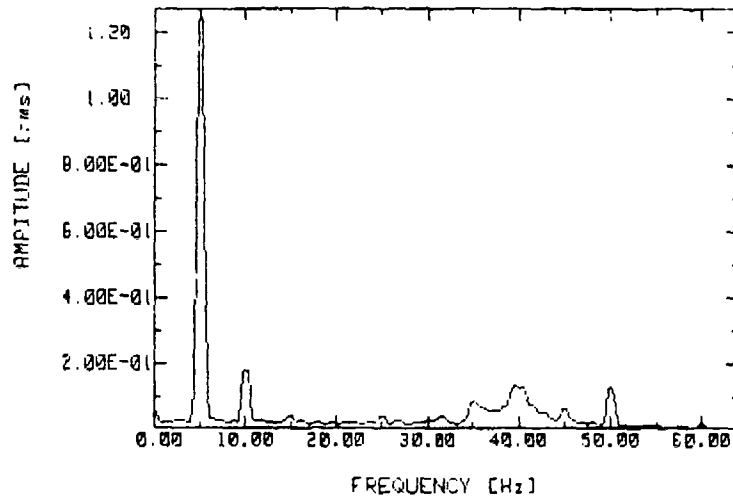
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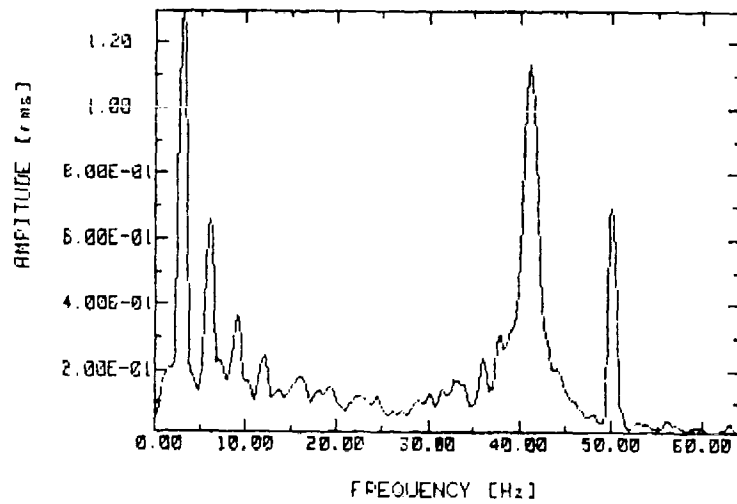
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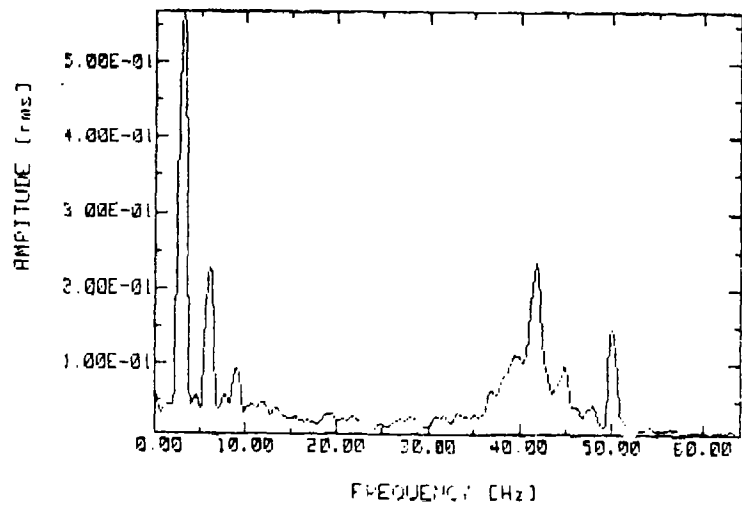
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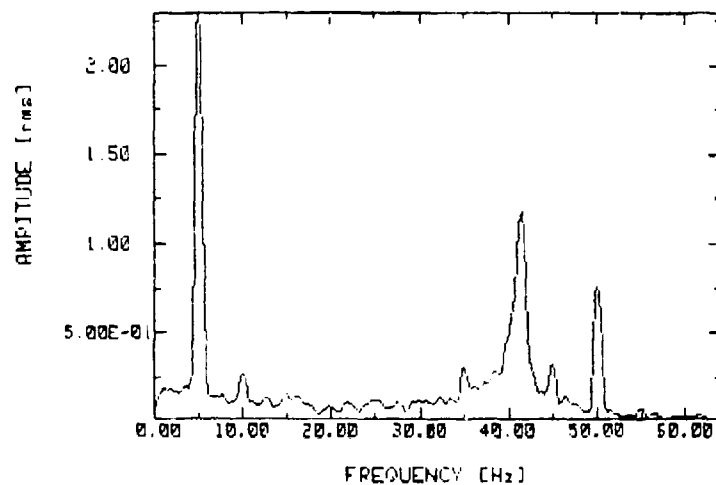
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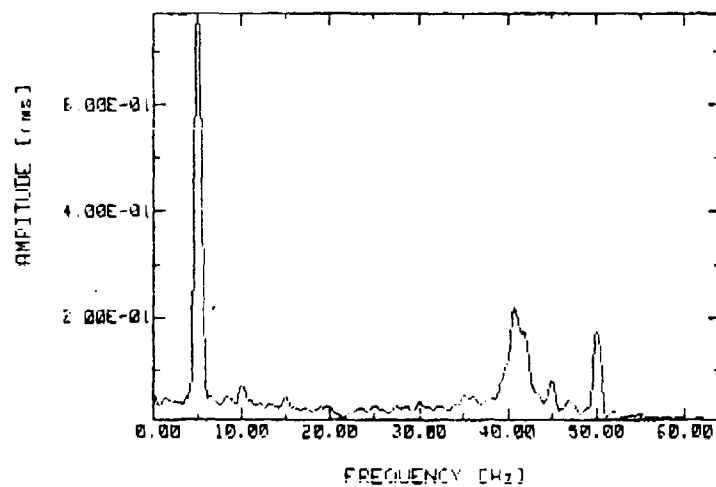
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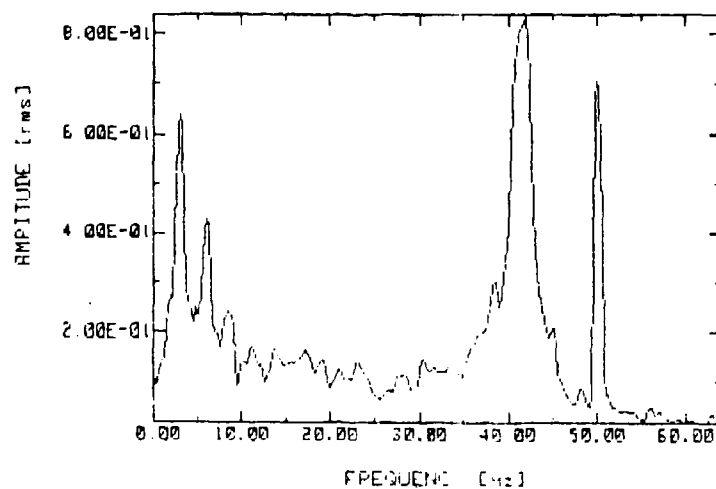
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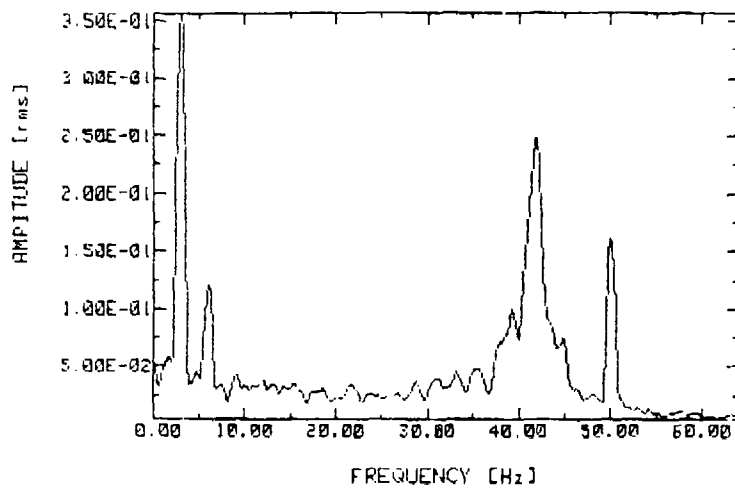
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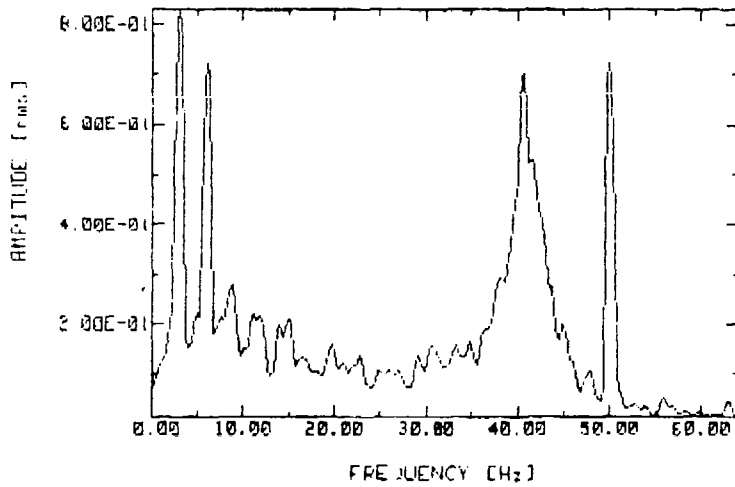
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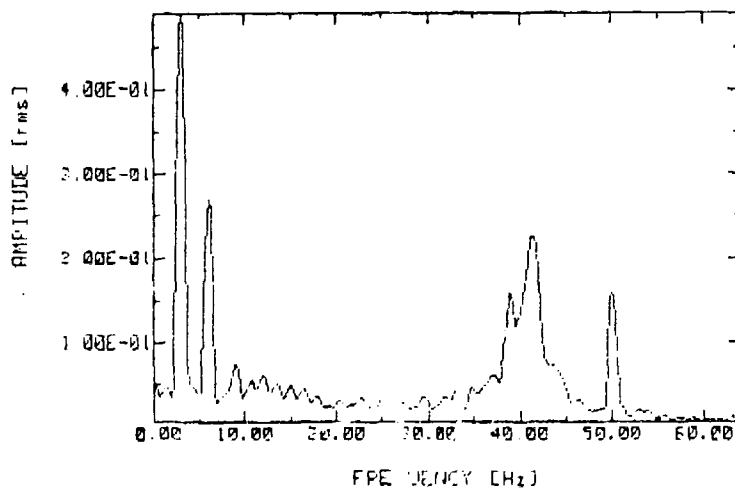
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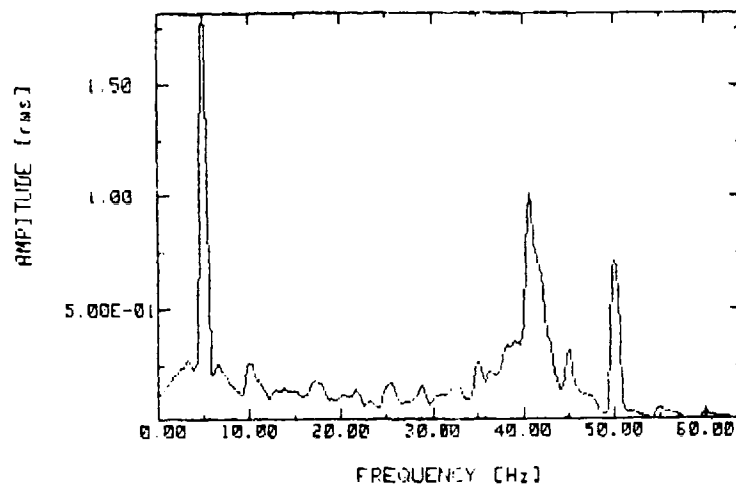
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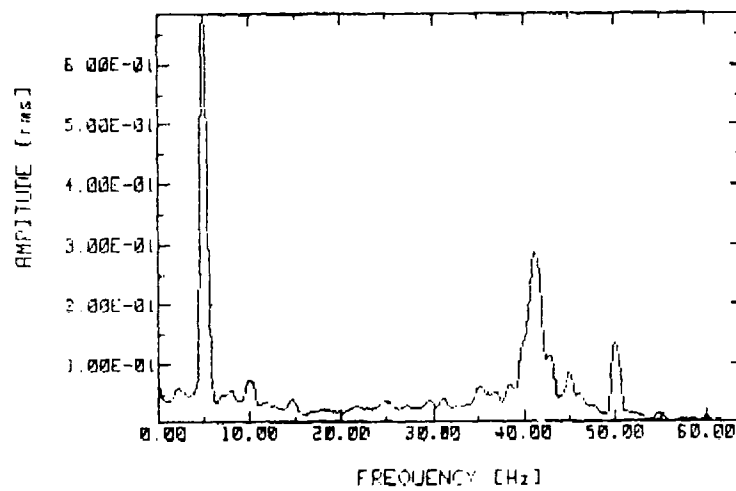
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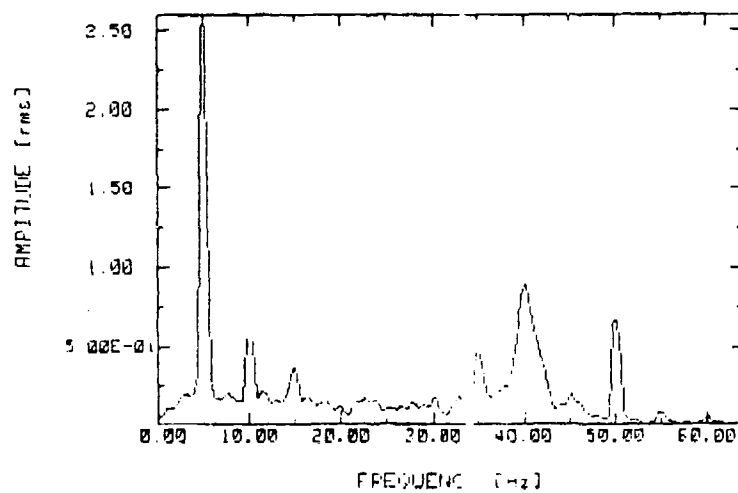
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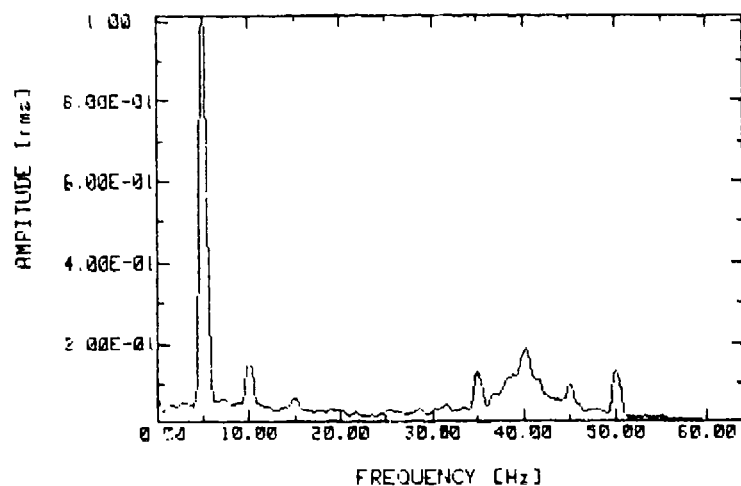
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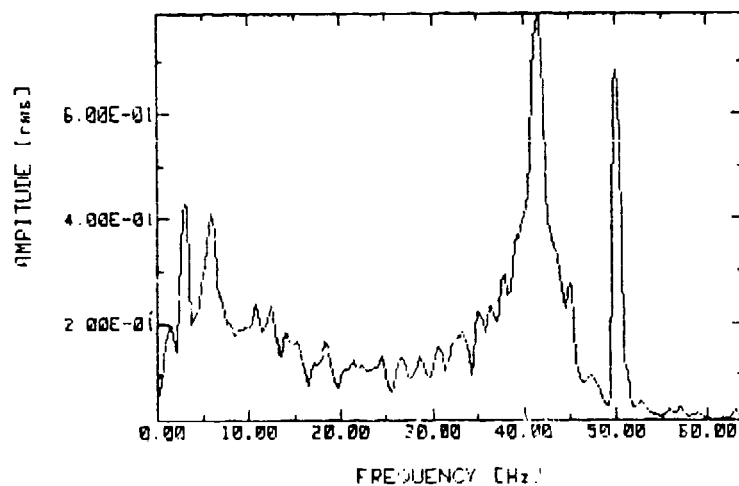
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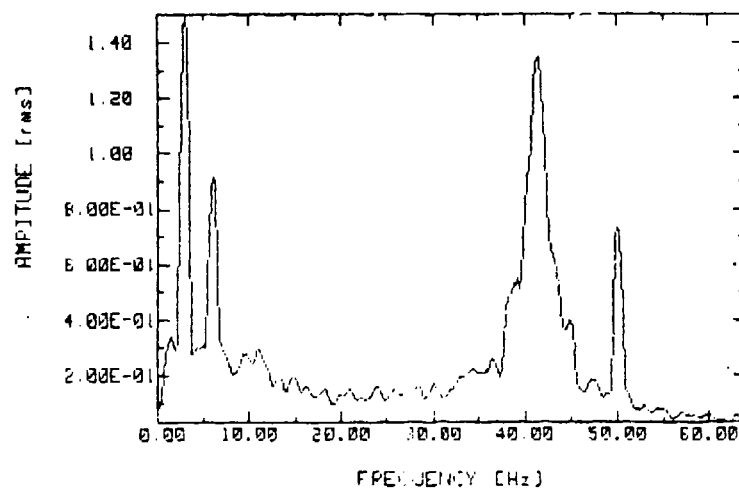
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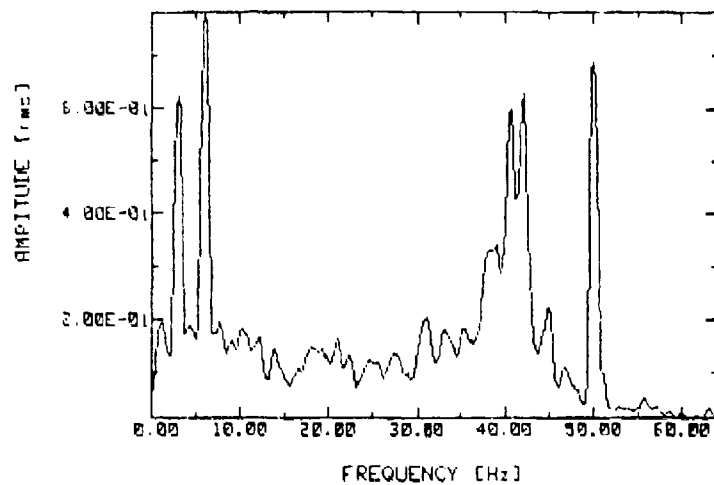
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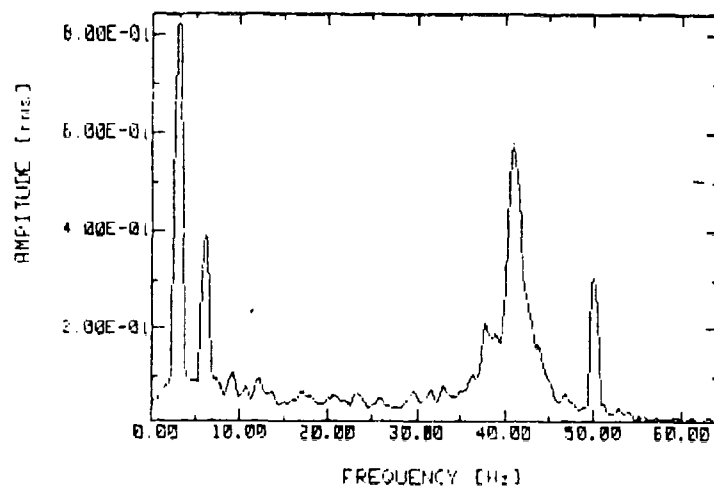
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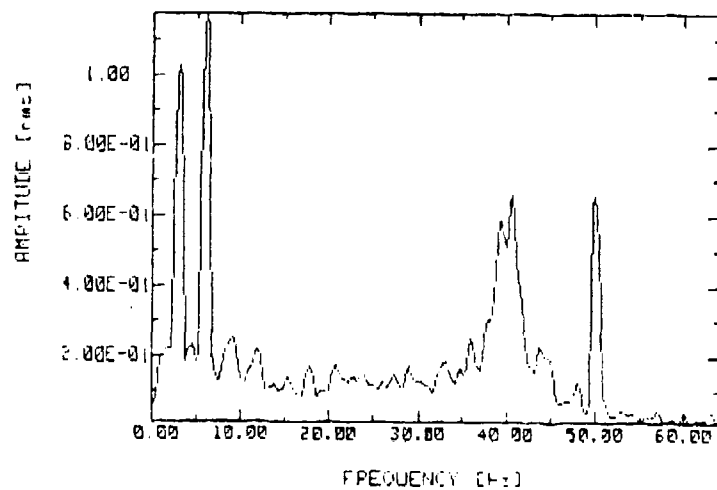
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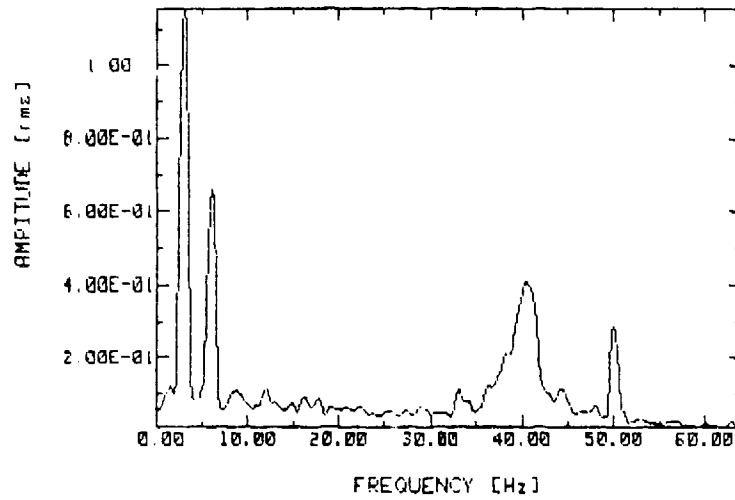
#RV: 10





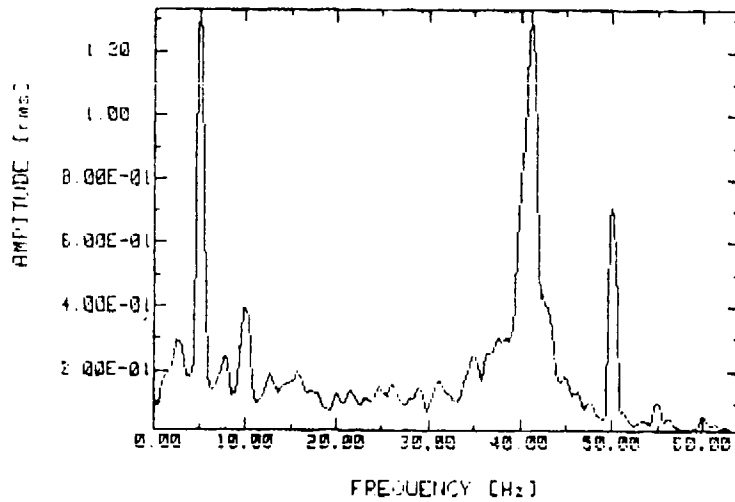
R SPEC 1 DELT\_2179

#AV: 10



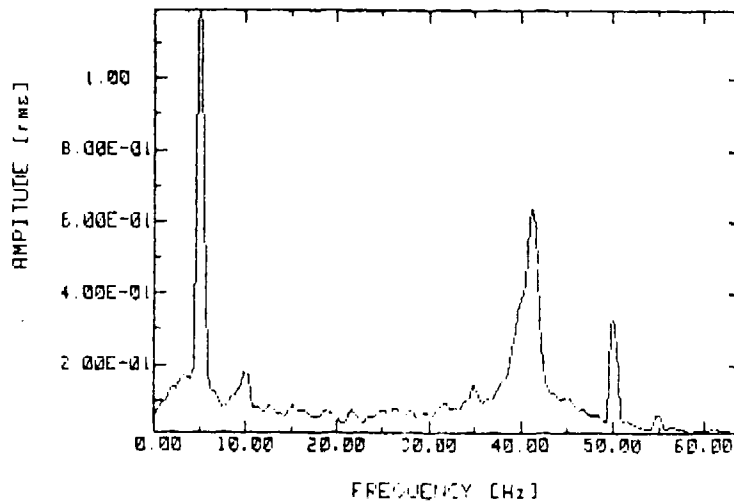
R SPEC 1 DELT\_2221

#AV: 10



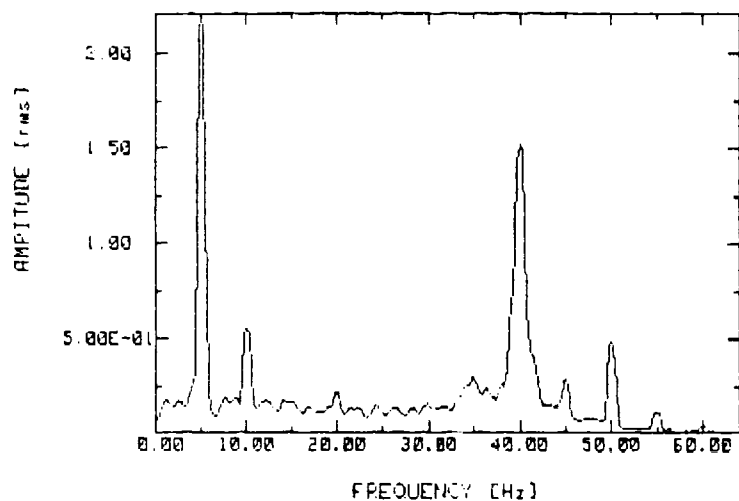
R SPEC 1 DELT\_2222

#AV: 10



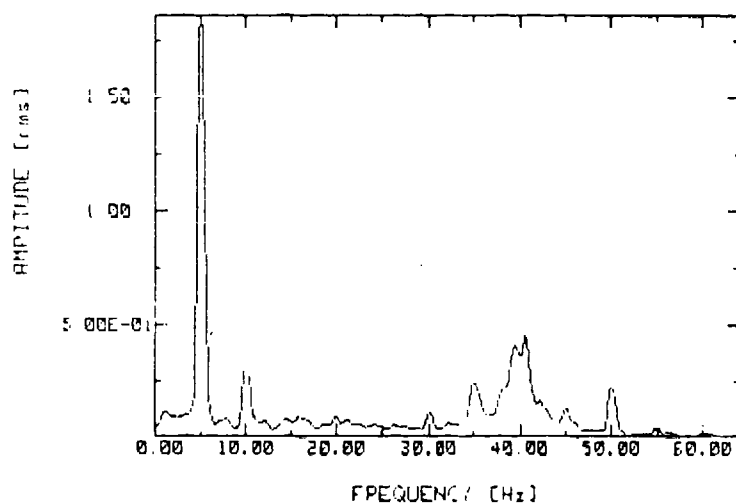
A SPEC 1 DELT\_2225

#AV: 10



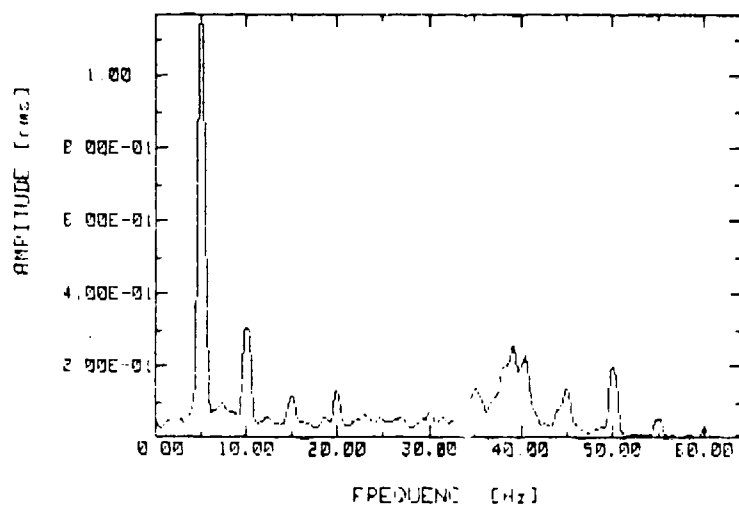
A SPEC 1 DELT\_2226

#AV: 10



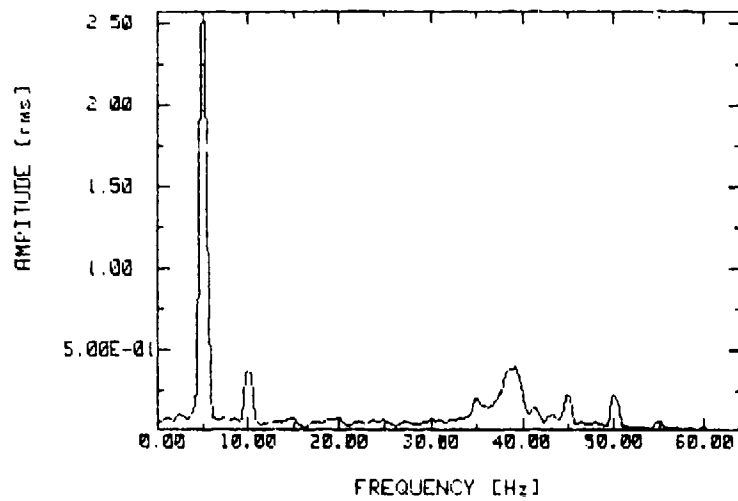
A SPEC 1 DELT\_2231

#AV: 10



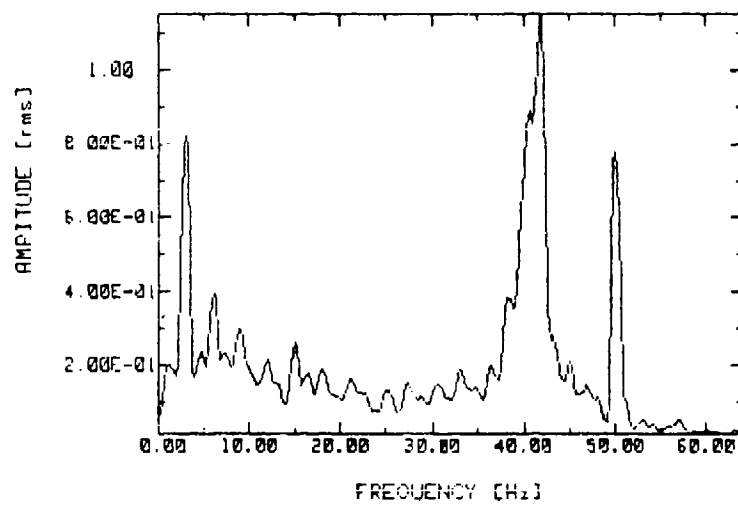
A SPEC 1 DELT\_2232

#RV: 10



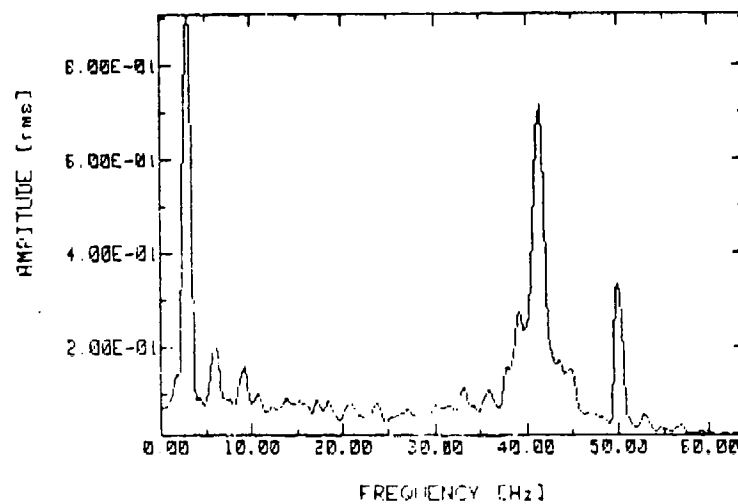
A SPEC 1 DELT\_2267

#RV: 10



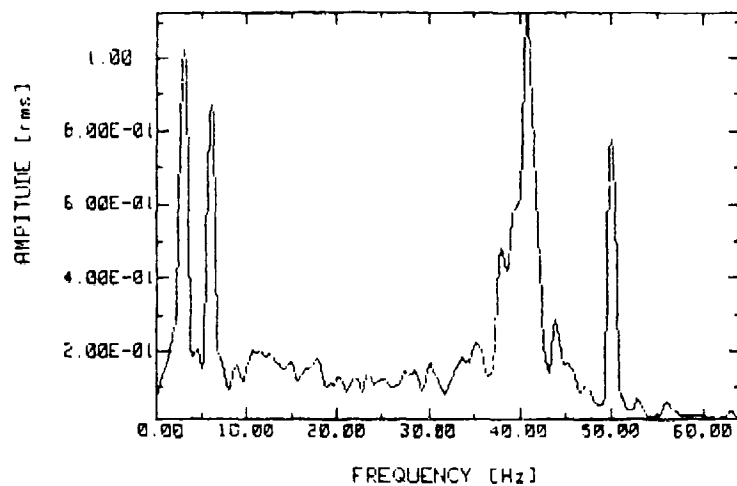
A SPEC 1 DELT\_2269

#RV: 10



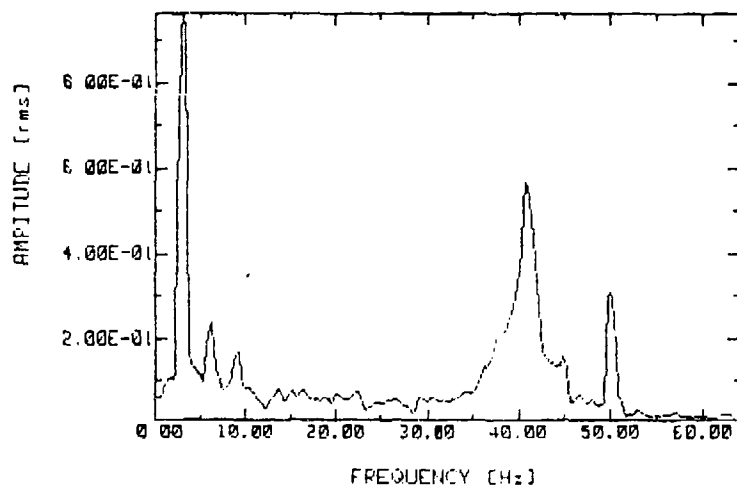
A SPEC 1 DELT\_2271

#RV: 10



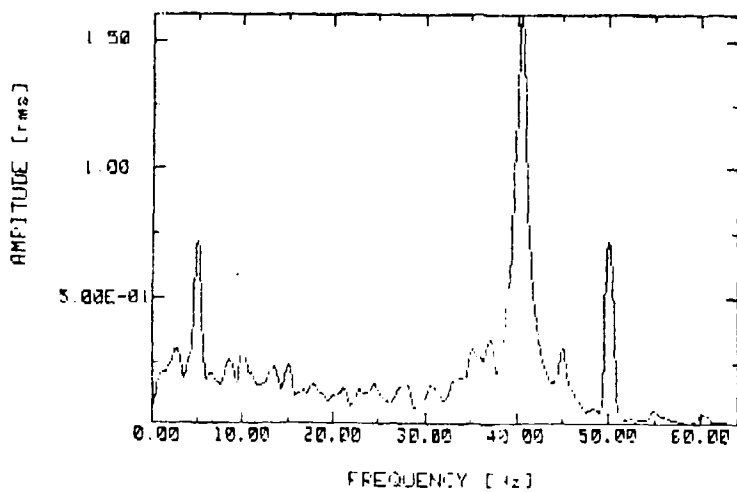
A SPEC 1 DELT\_2272

#RV: 10



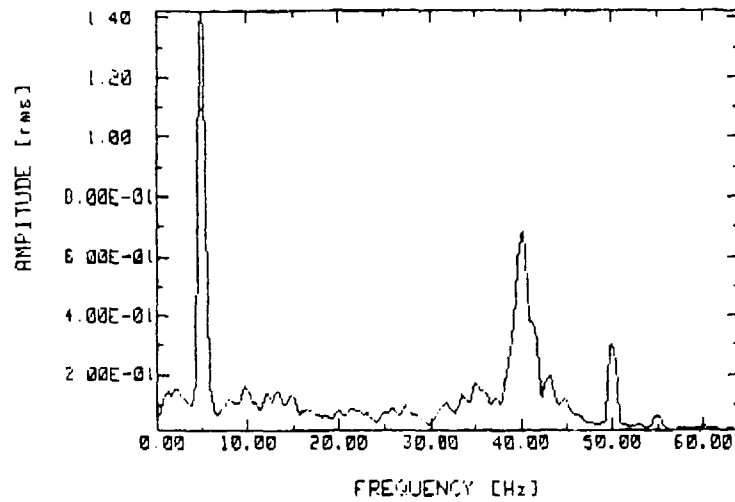
A SPEC 1 DELT\_3105

#RV: 10



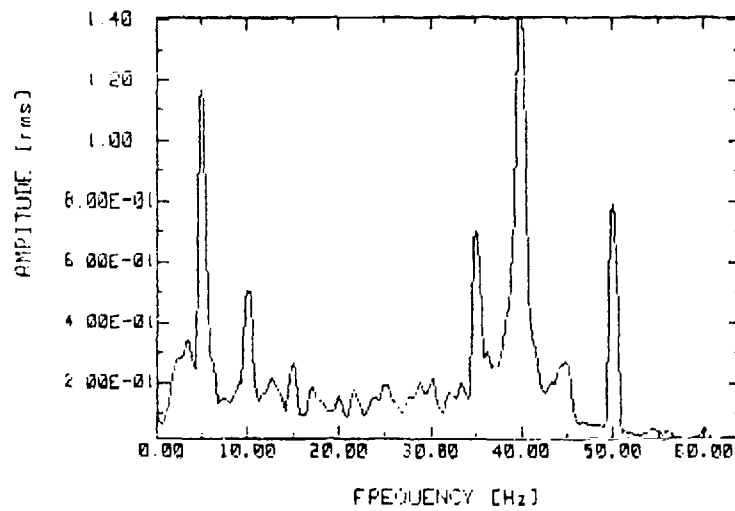
A SPEC 1 DELT\_3106

#AV: 10



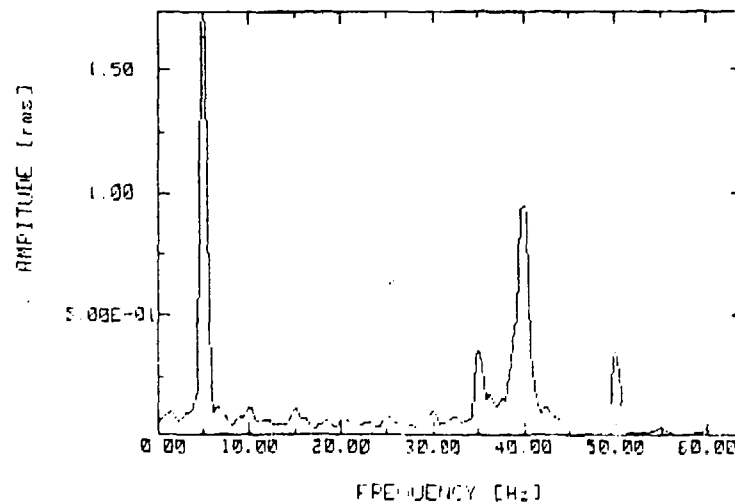
A SPEC 1 DELT\_3109

#AV: 10



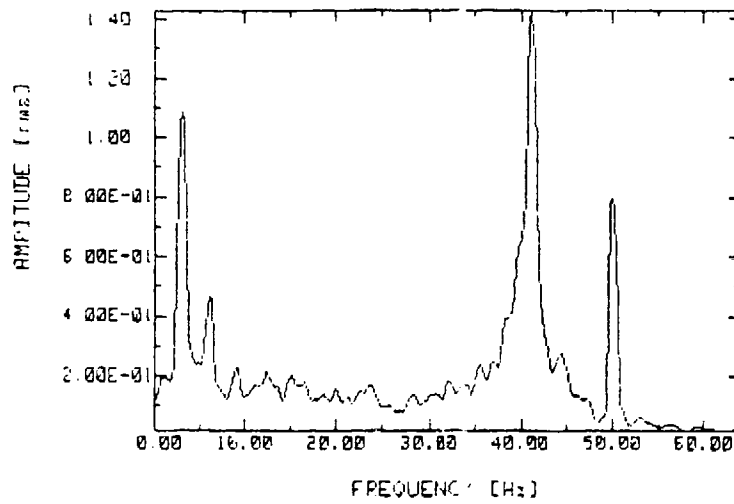
A SPEC 1 DELT\_3110

#AV: 10



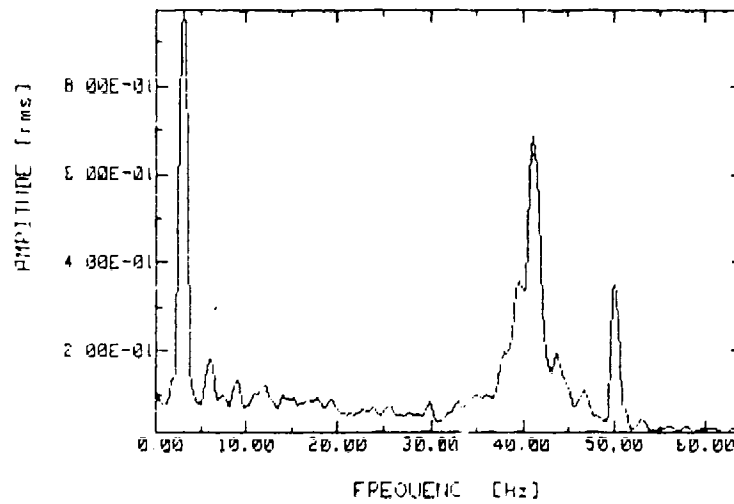
A SPEC 1 DELT\_3117

#RV: 10



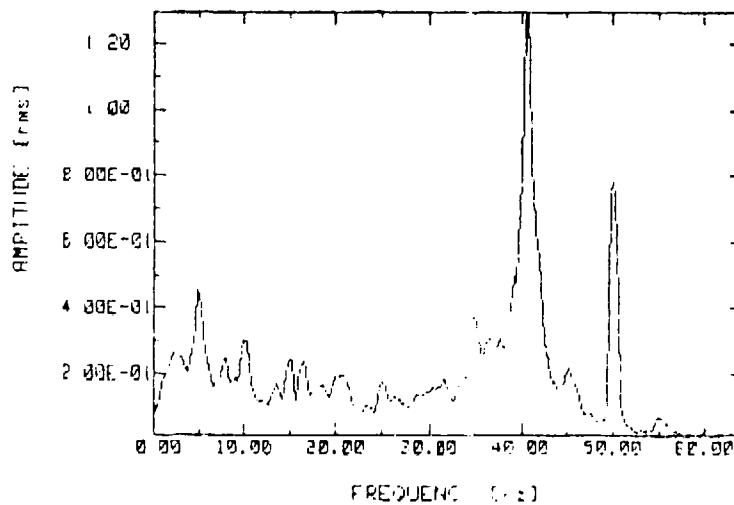
A SPEC 1 DELT\_3118

#RV: 10



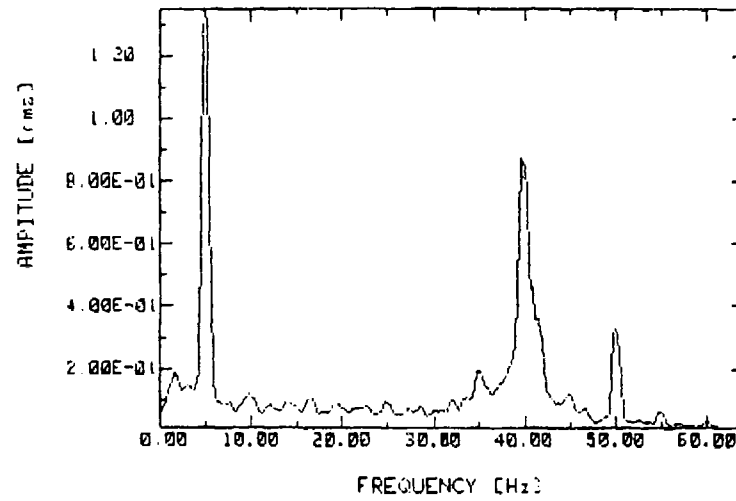
A SPEC 1 DELT\_3127

#RV: 10



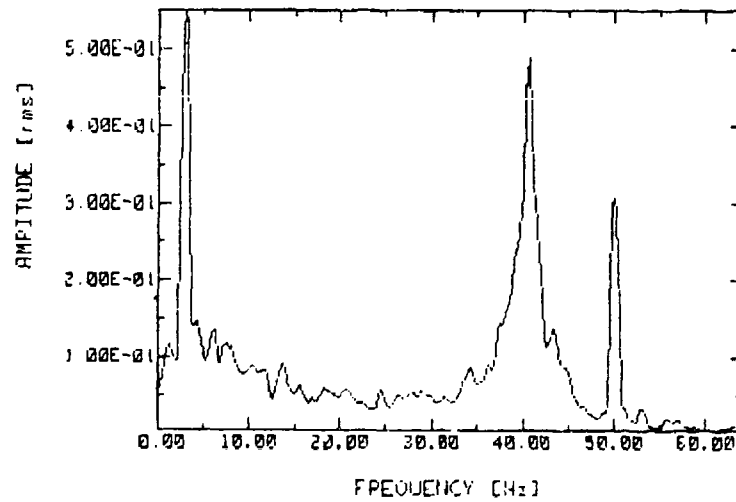
R SPEC 1 DELT\_3128

#AV: 10



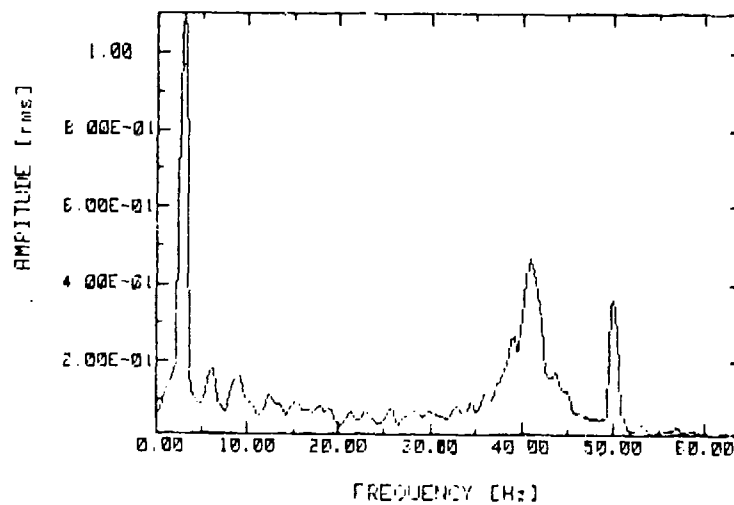
R SPEC 1 DELT\_3137

#AV: 10



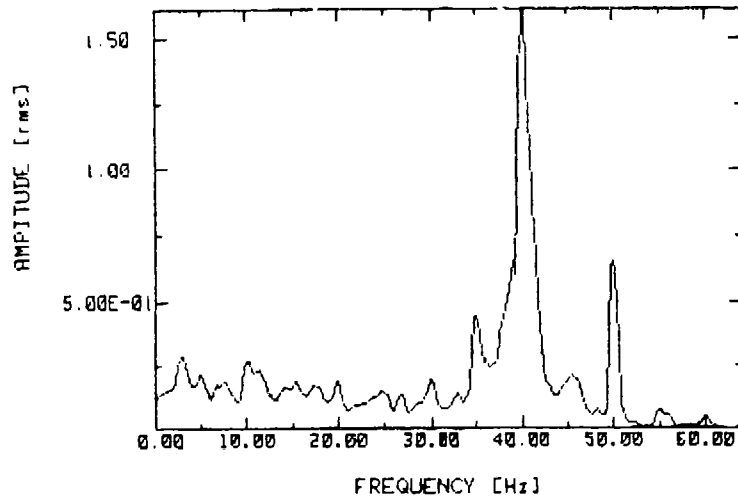
R SPEC 1 DELT\_3138

#AV: 10



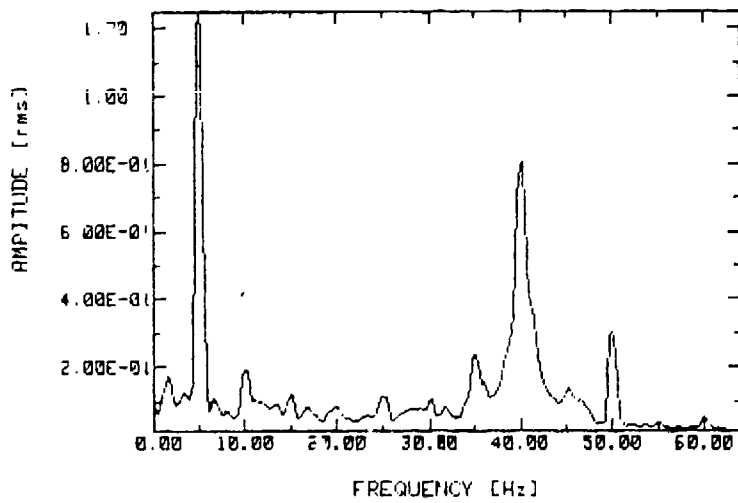
A SPEC 1 DELT\_3145

#AV: 10



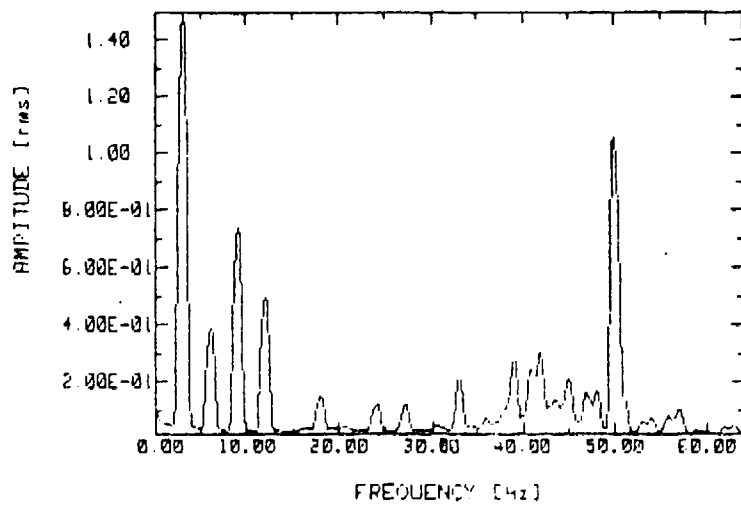
A SPEC 1 DELT\_3146

#AV: 10



A SPEC 1 DELT\_3202

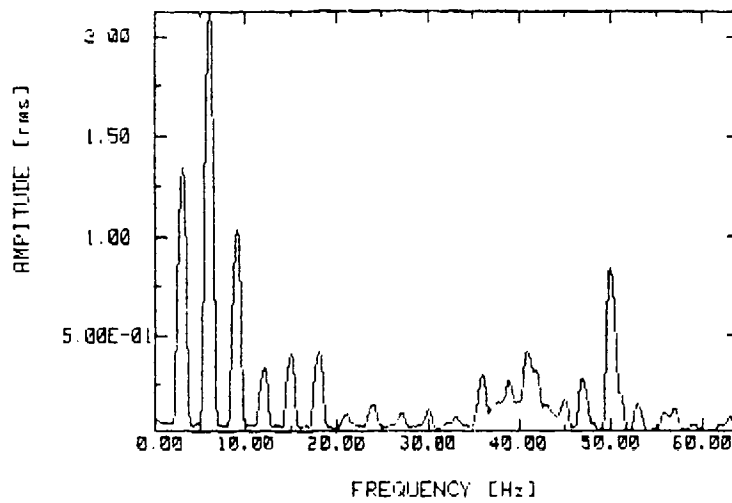
#AV: 10





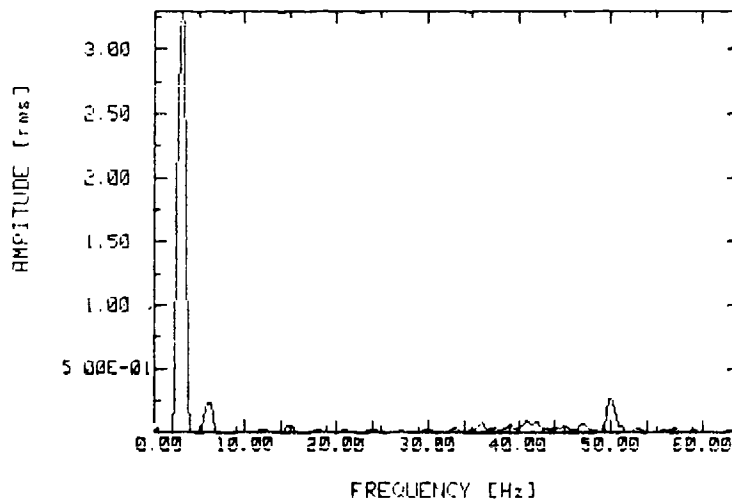
A SPEC 1 DELT\_3203

#AV: 10



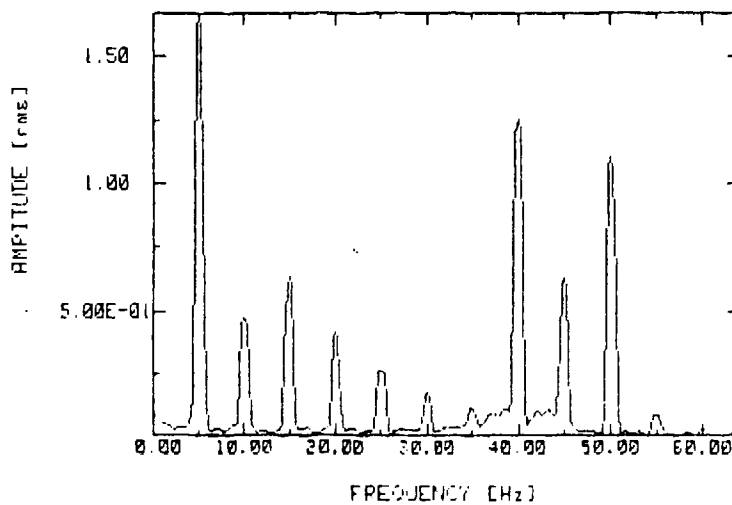
A SPEC 1 DELT\_3204

#AV: 10



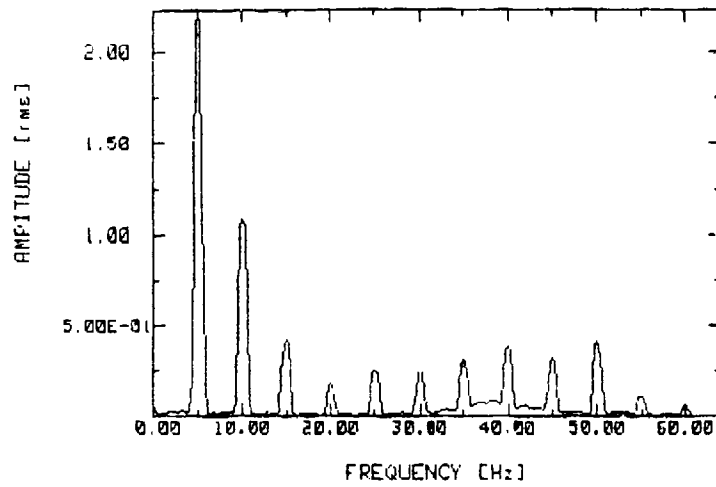
A SPEC 1 DELT\_3207

#AV: 10



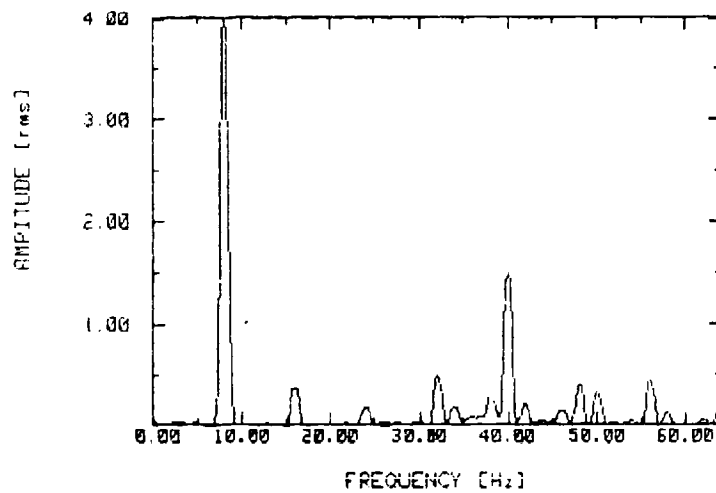
R SPEC 1 DELT\_3200

#AV: 10



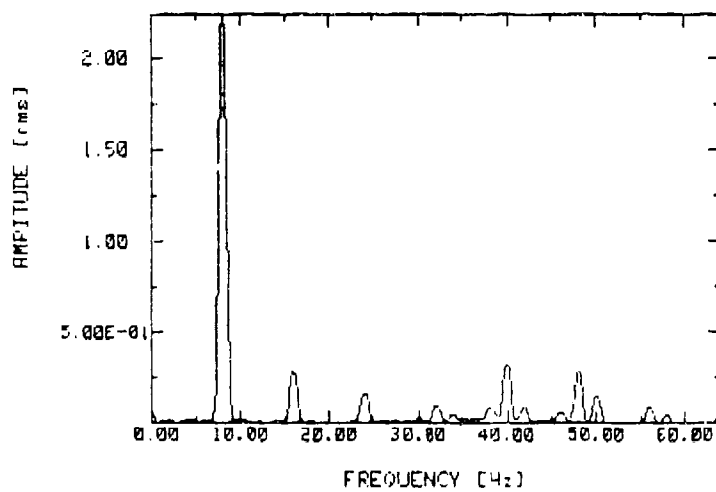
R SPEC 1 DELT\_3211

#AV: 10



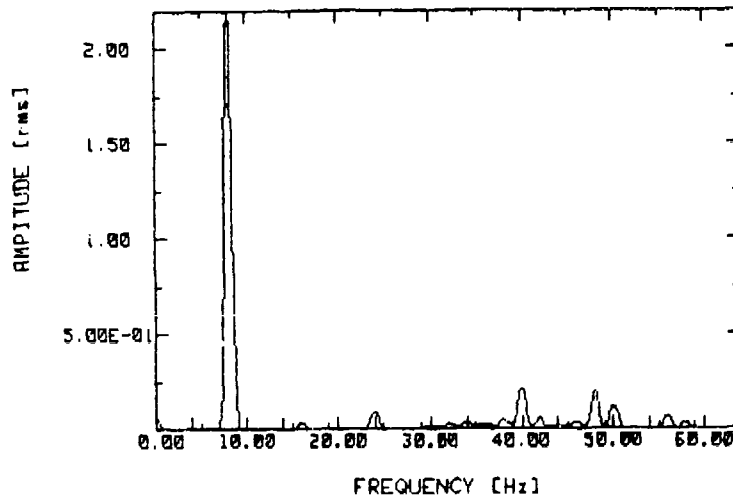
R SPEC 1 DELT\_3243

#AV: 10



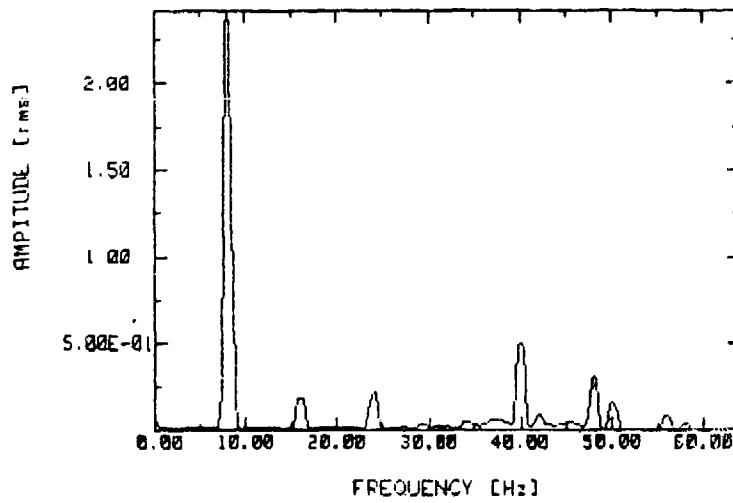
A SPEC 1 DELT\_3244

#RV: 10



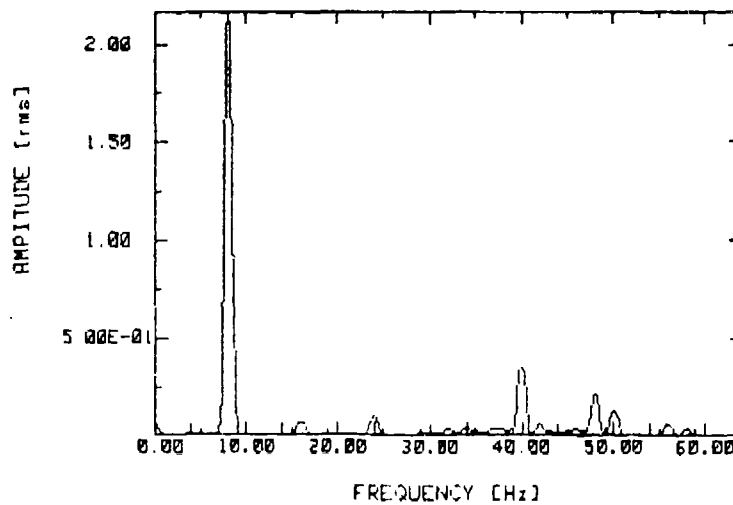
A SPEC 1 DELT\_3255

#RV: 10



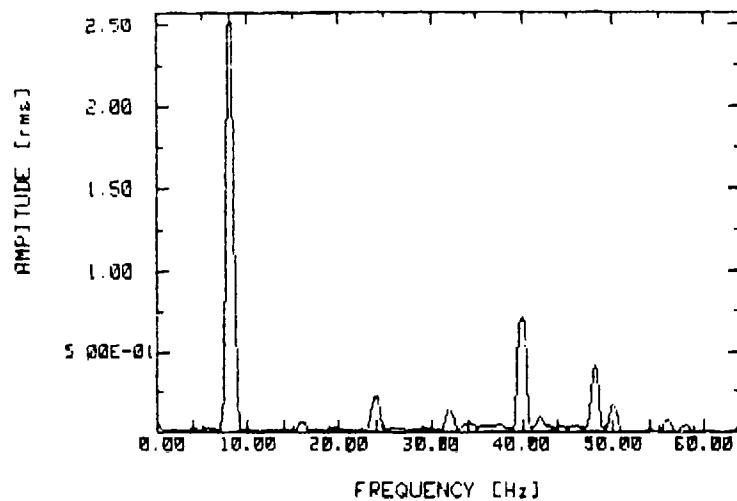
A SPEC 1 DELT\_3256

#RV: 10



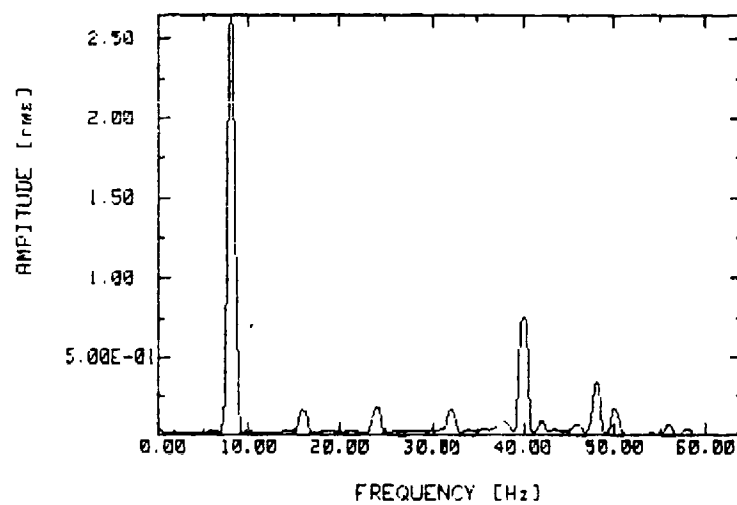
A SPEC 1 DELT\_3270

#AV: 10



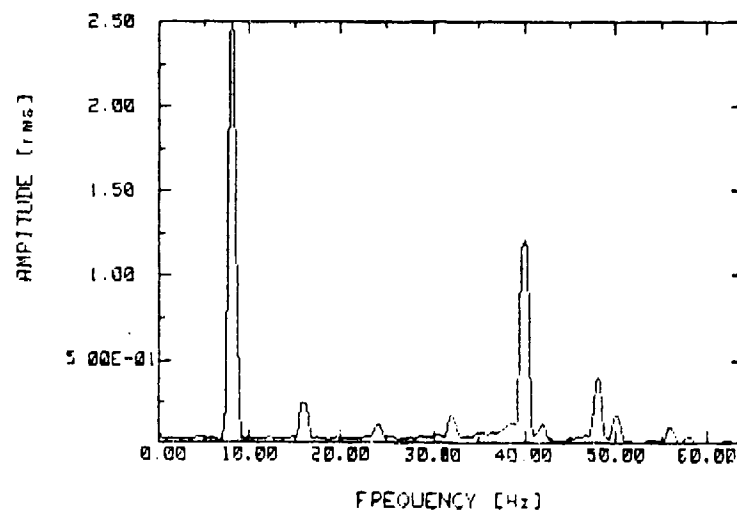
A SPEC 1 DELT\_4104

#AV: 10



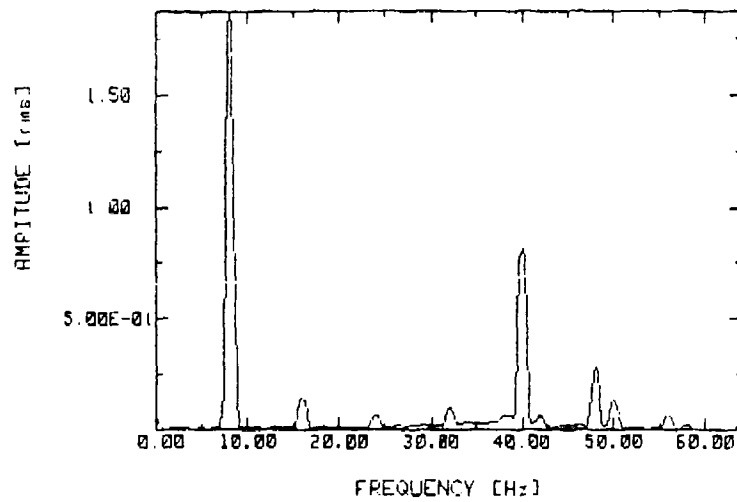
A SPEC 1 DELT\_4110

#AV: 10



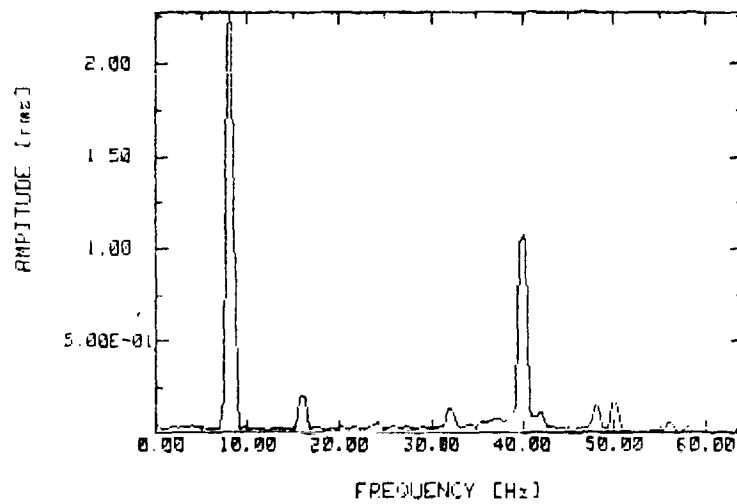
R SPEC 1 DELT\_4111

#RV: 10



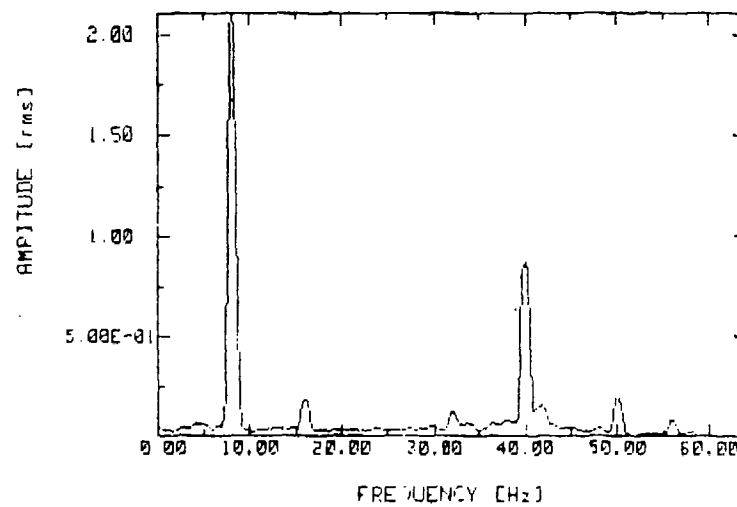
R SPEC 1 DELT\_4117

#RV: 10



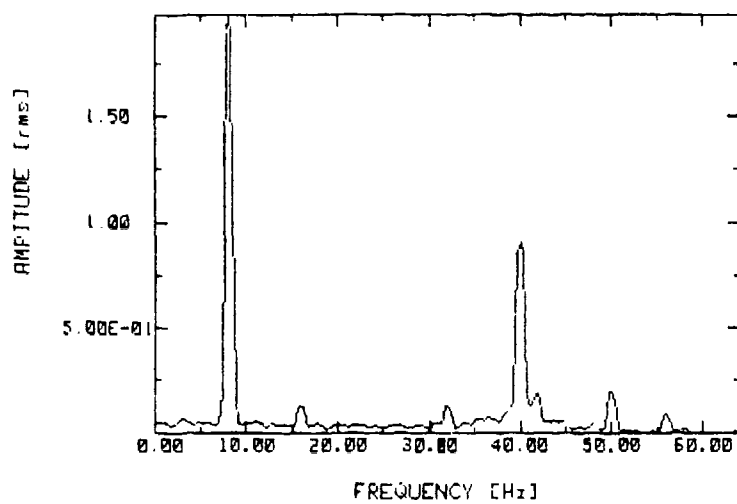
R SPEC 1 DELT\_4123

#RV: 10



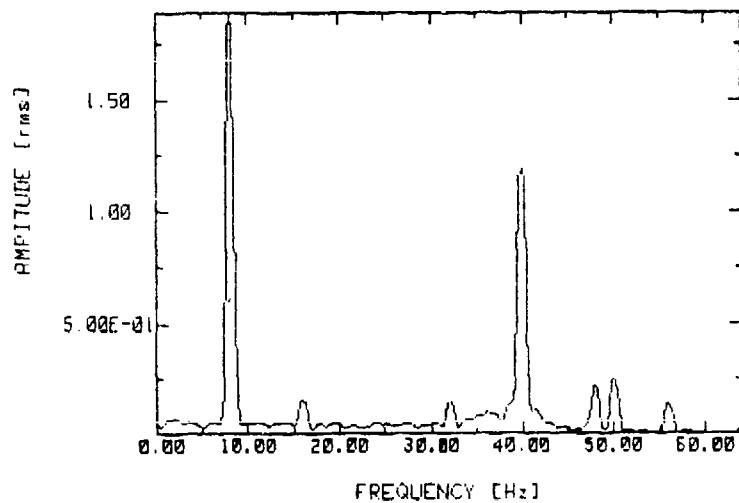
R SPEC 1 DELT\_4129

#RV: 10



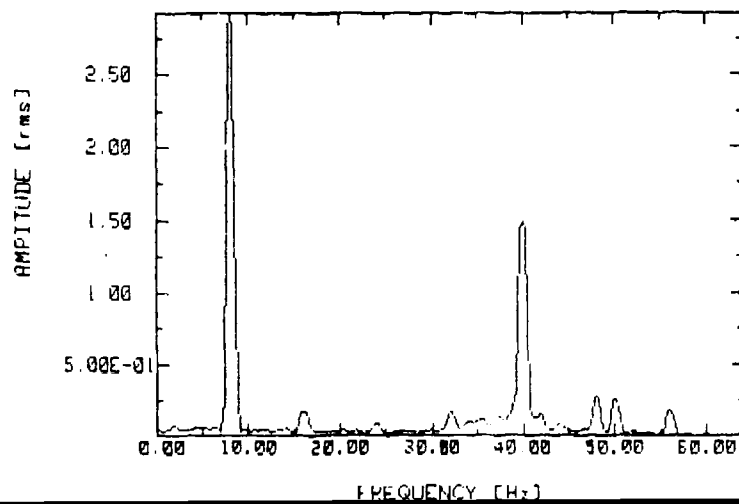
R SPEC 1 DELT\_4149

#RV: 10



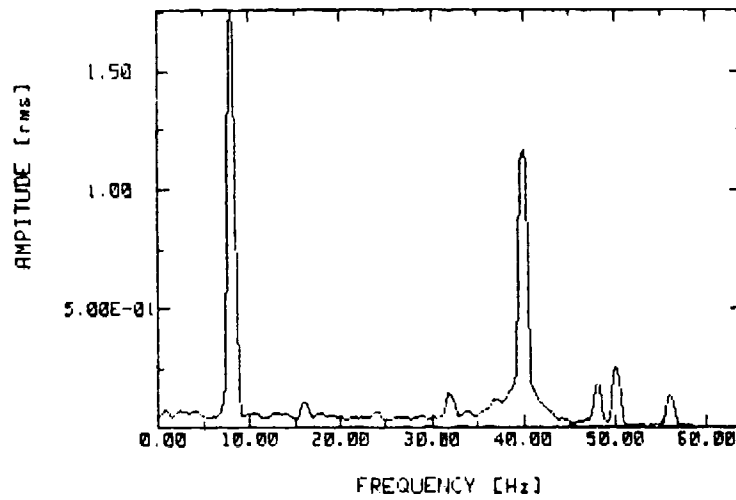
R SPEC 1 DELT\_4150

#RV: 10



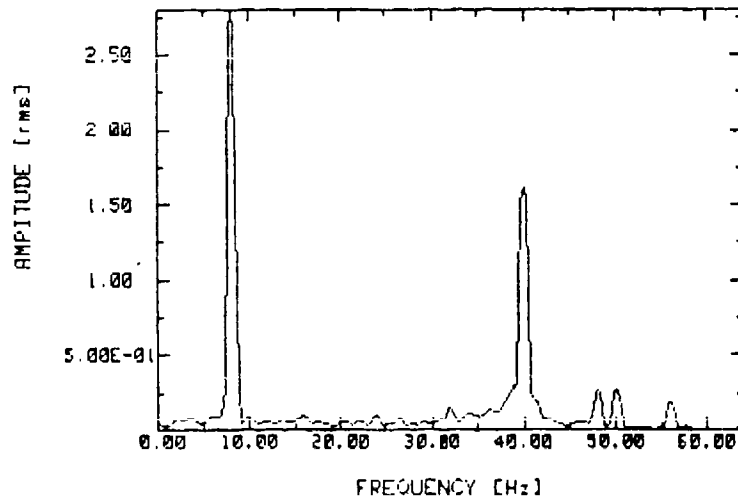
A SPEC 1 DELT\_4161

#AV: 10



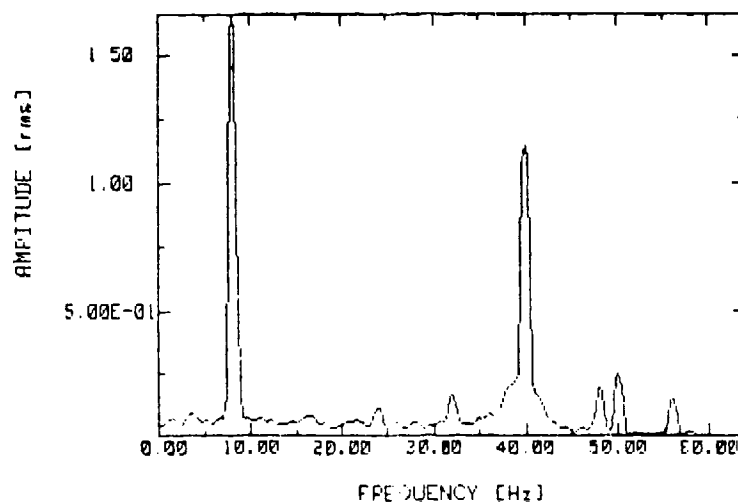
A SPEC 1 DELT\_4162

#AV: 10



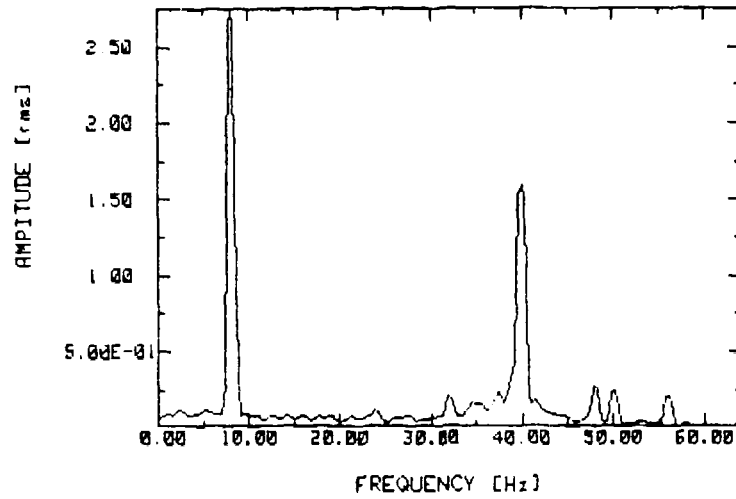
A SPEC 1 DELT\_5115

#AV: 10



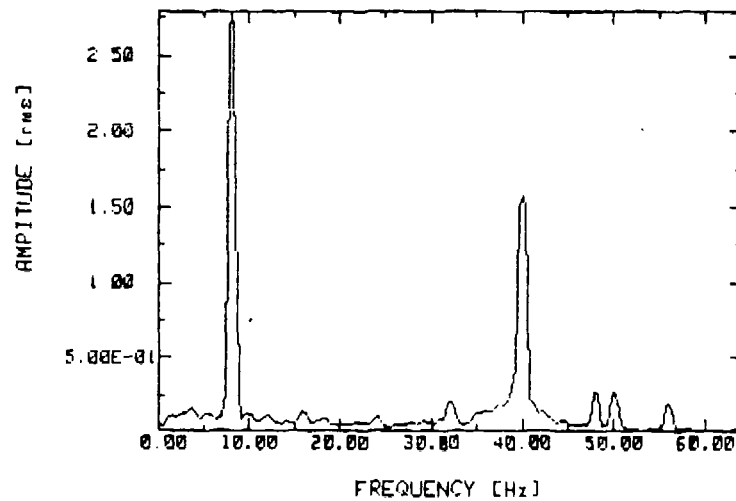
A SPEC 1 DELT\_5116

#RV: 10



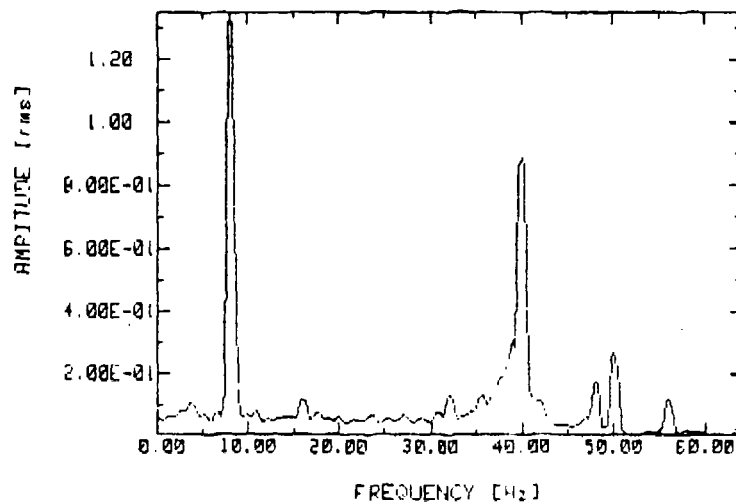
A SPEC 1 DELT\_5132

#RV: 10



A SPEC 1 DELT\_5155

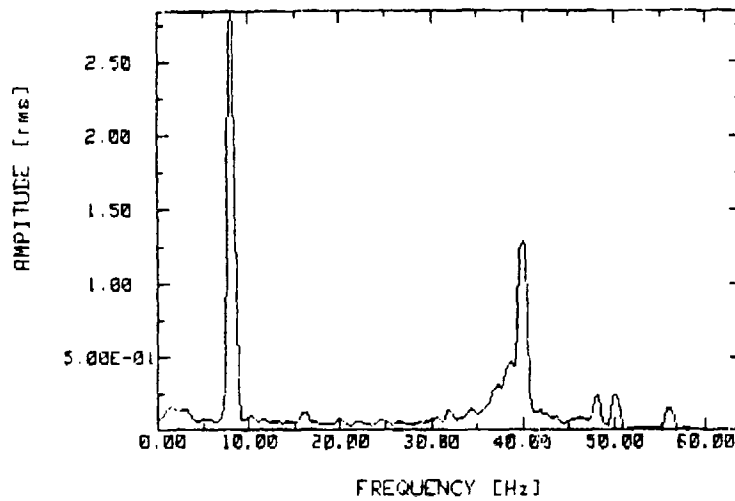
#RV: 10





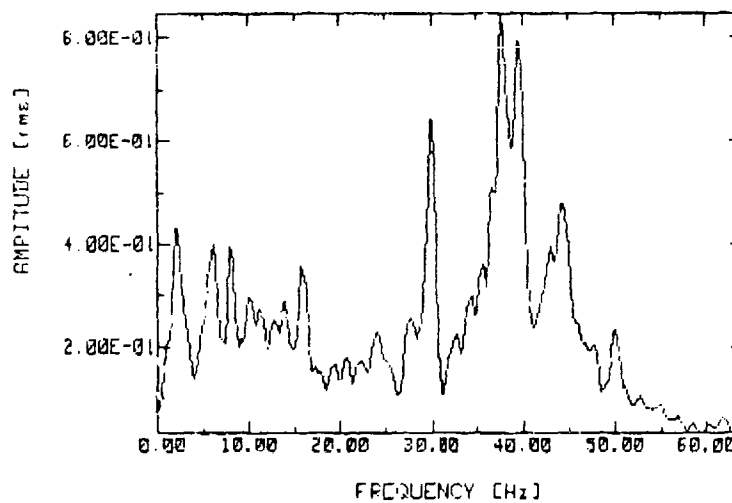
A SPEC 1 DELT\_5156

#RV: 10



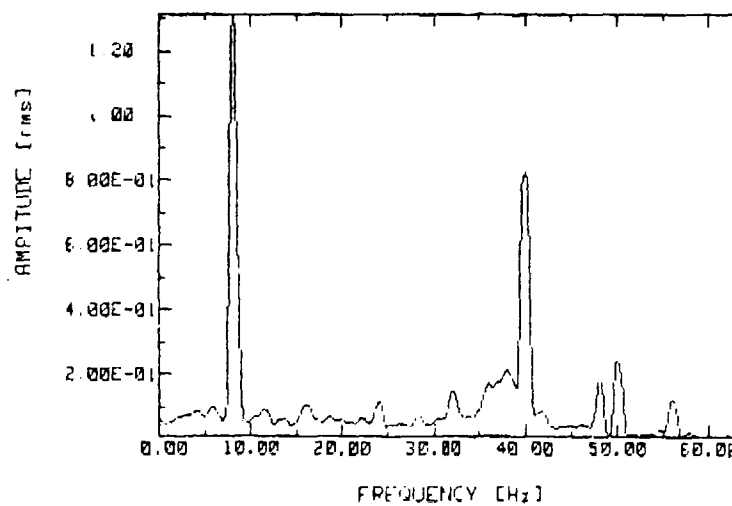
A SPEC 1 DELT\_5157

#RV: 10



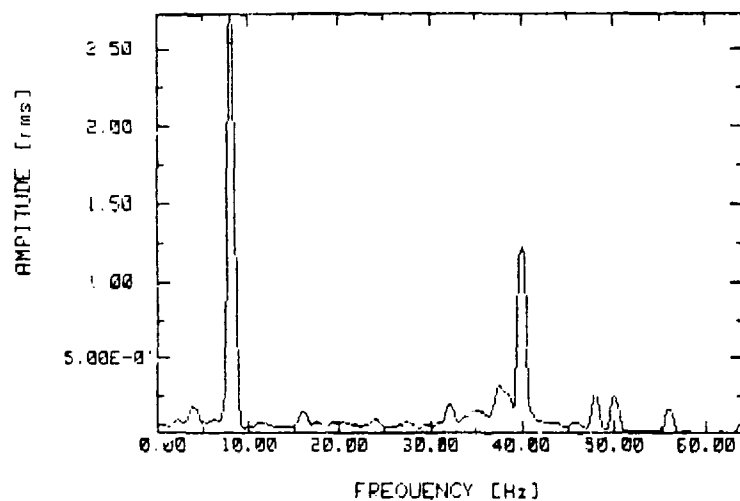
A SPEC 1 DELT\_5160

#RV: 10



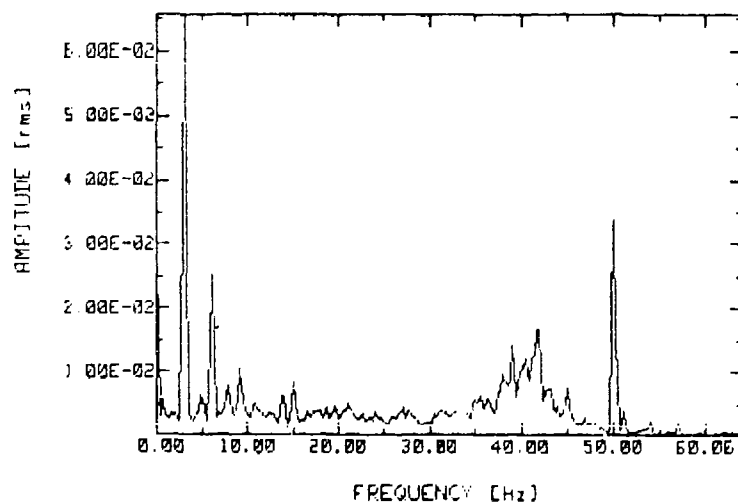
A SPEC 1 DELT\_5169

#RV: 10



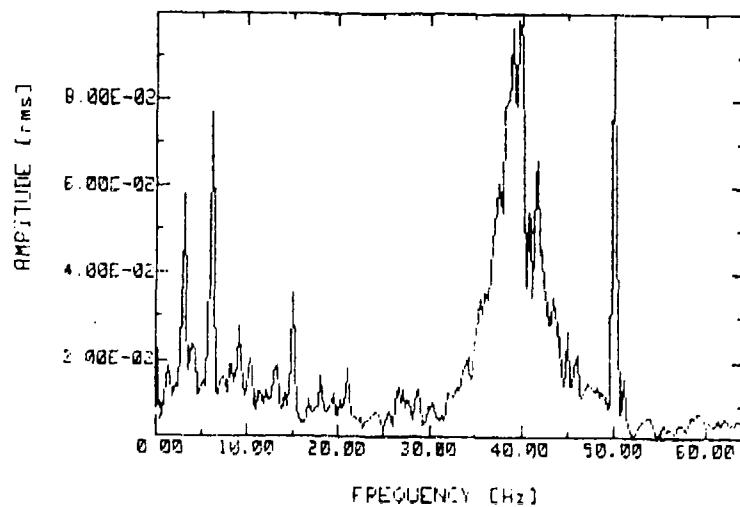
A SPEC 2 DELT\_5240

#RV: 10



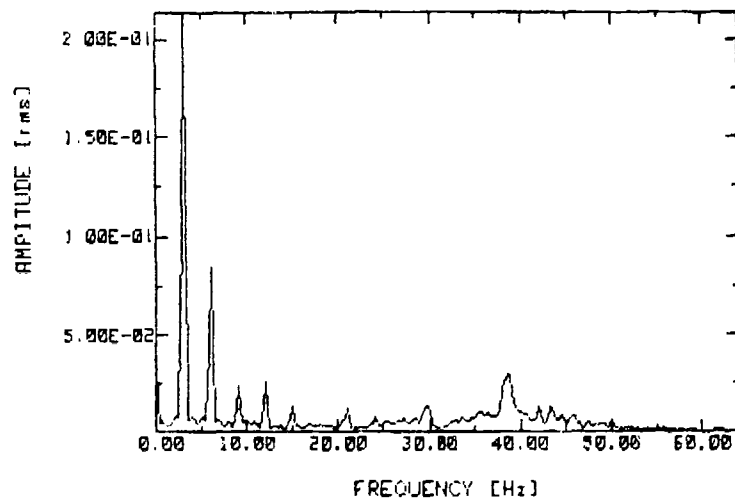
A SPEC 2 DELT\_5241

#RV: 10



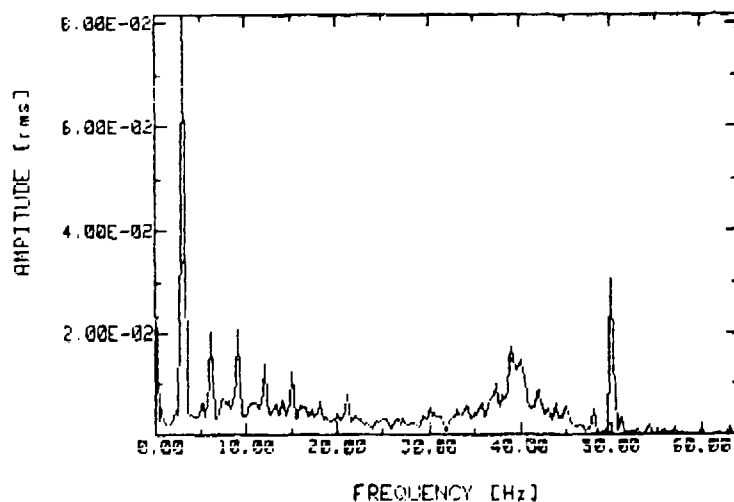
A SPEC 2 DELT\_5242

#AV: 10



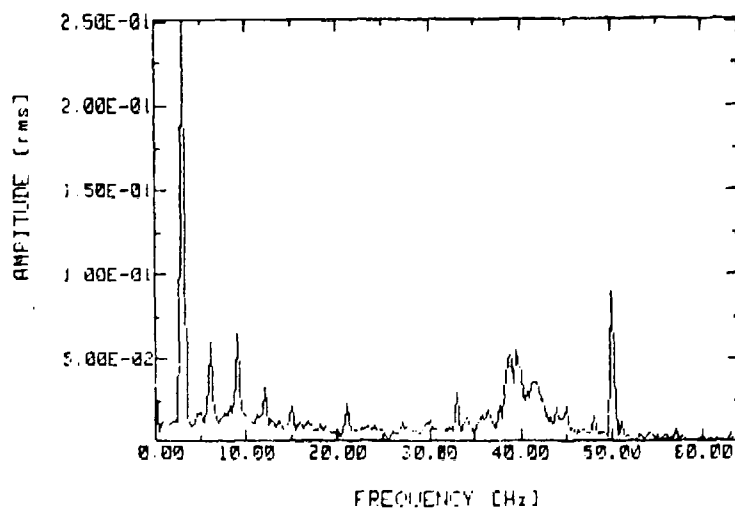
A SPEC 2 DELT\_5243

#AV: 10



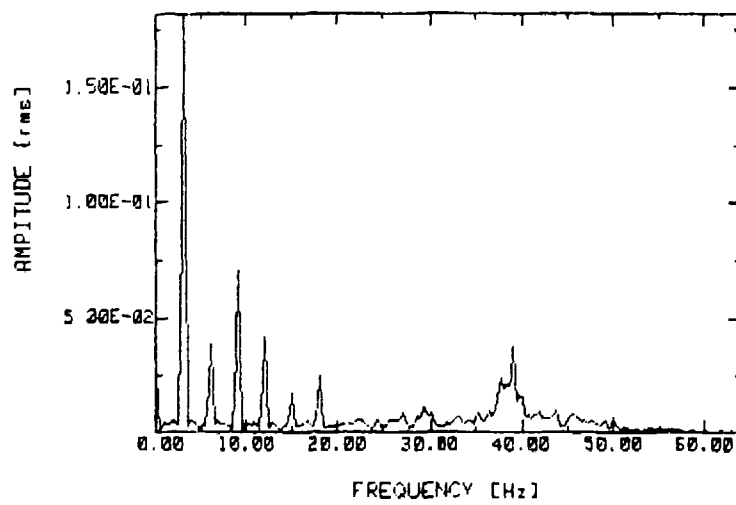
A SPEC 2 DELT\_5244

#AV: 10



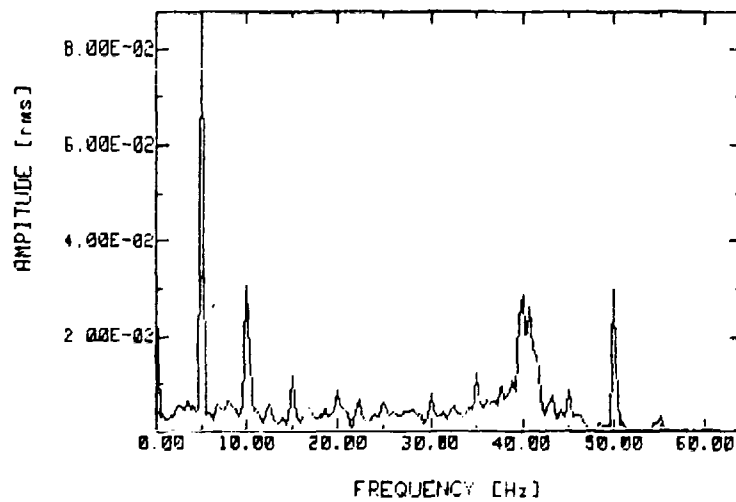
A SPEC 2 DELT\_5245

#AV: 10



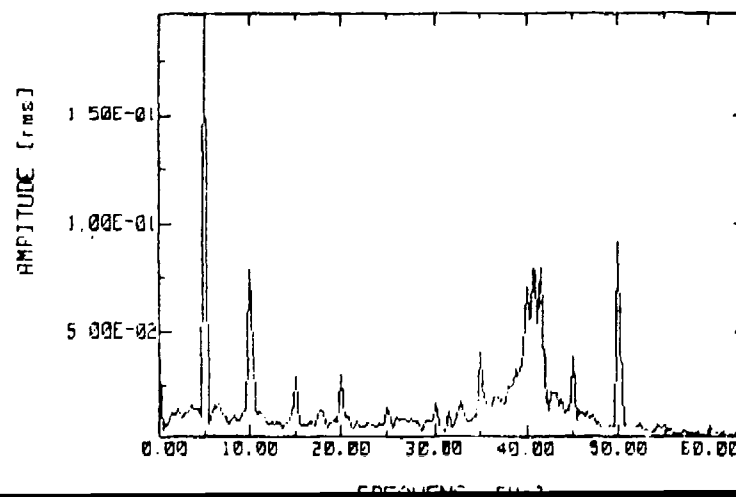
A SPEC 2 DELT\_5249

#AV: 10



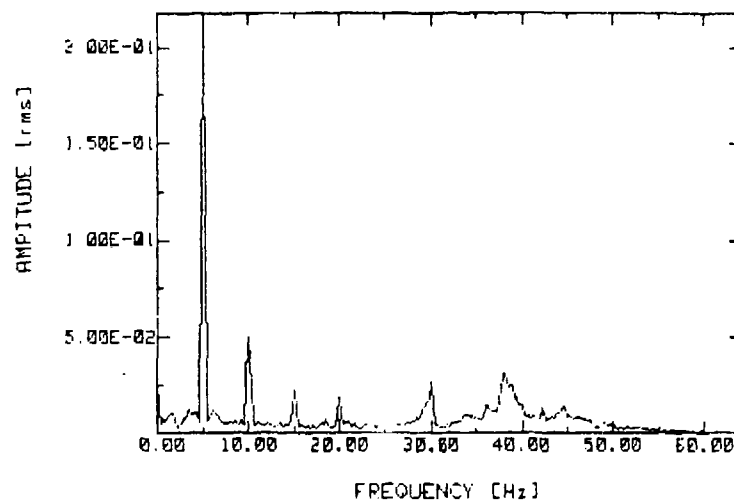
A SPEC 2 DELT\_5250

#AV: 10



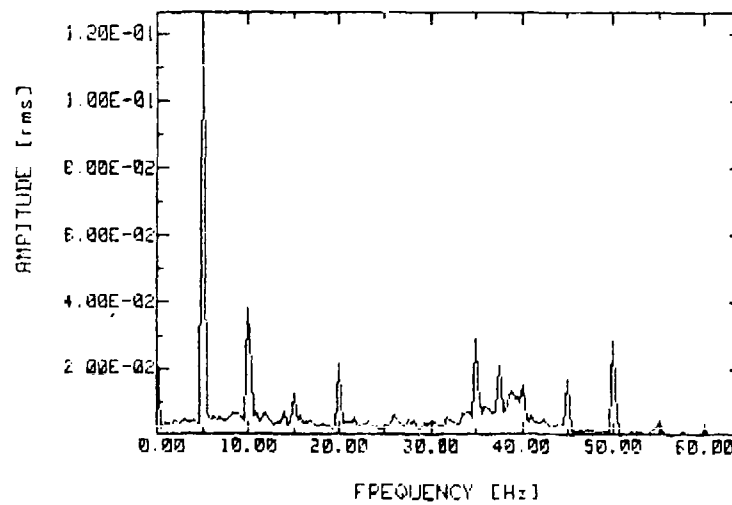
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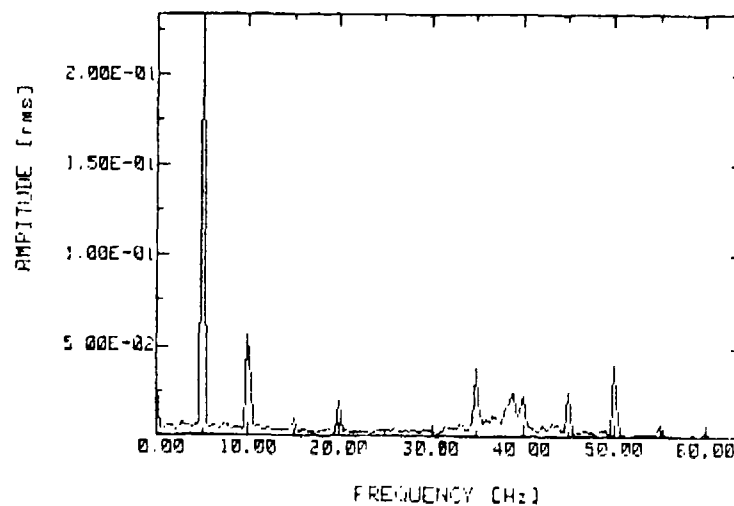
A SPEC 2 DELT\_5252

#RW: 10



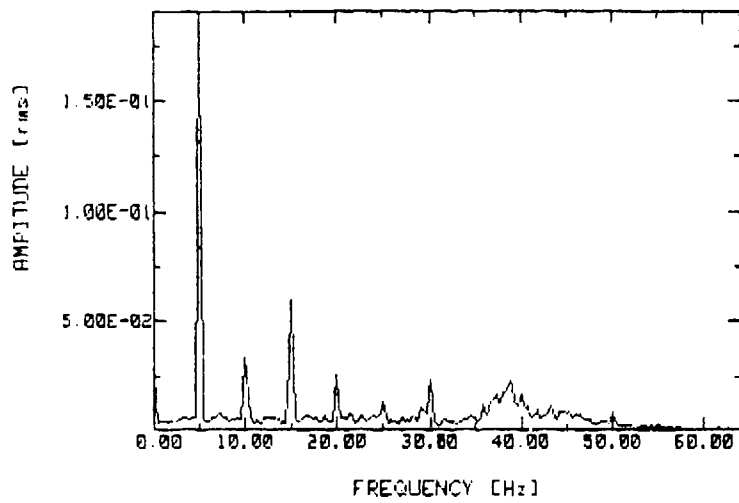
A SPEC 2 DELT\_5253

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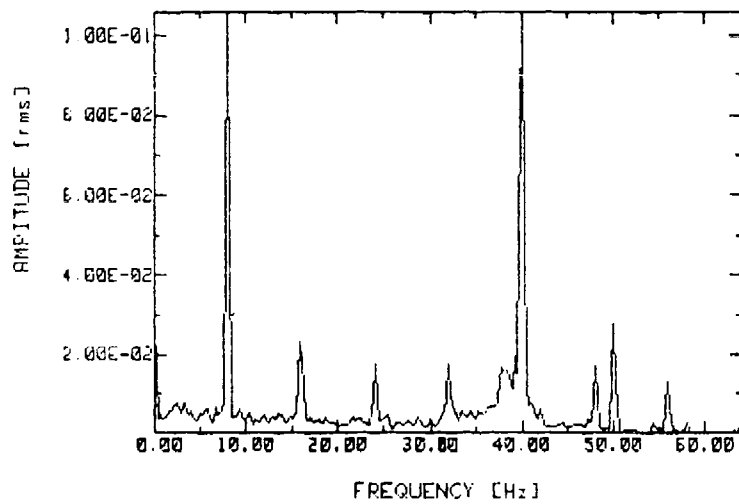
A SPEC 2 DELT\_5254

#RV: 10



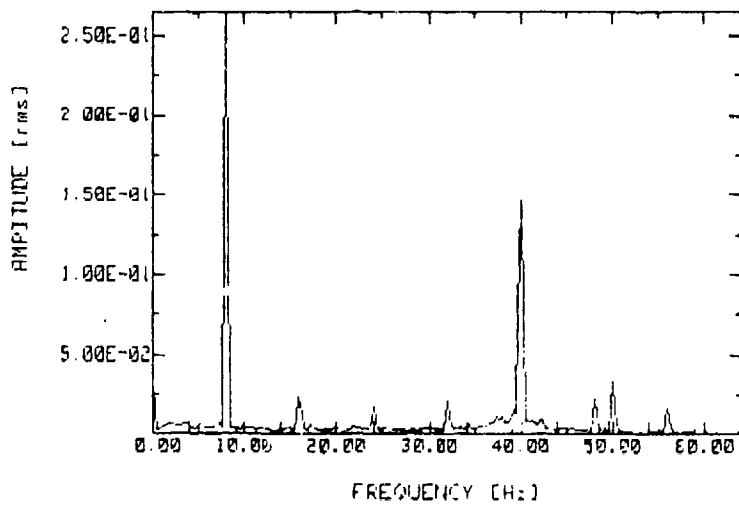
A SPEC 2 DELT\_5261

#RV: 10



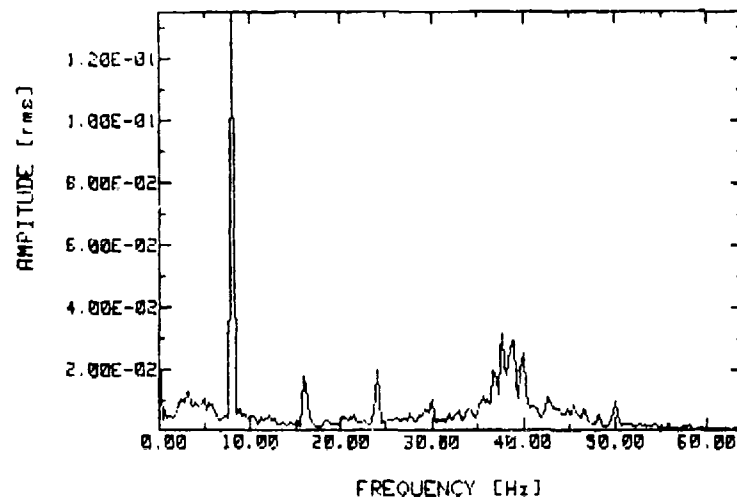
A SPEC 2 DELT\_5262

#RV: 10



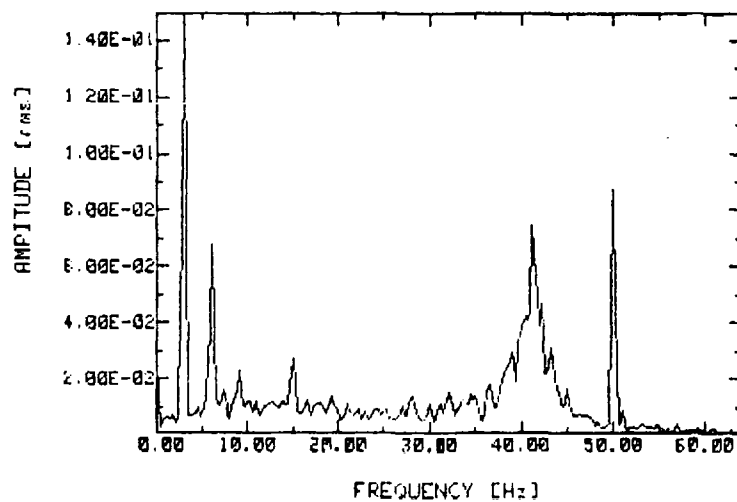
A SPEC 2 DELT\_5269

#AV: 10



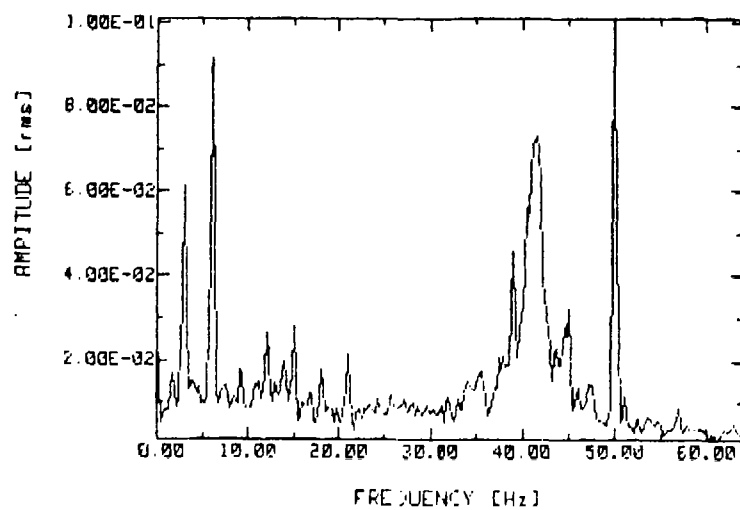
A SPEC 2 DELT\_5270

#AV: 10



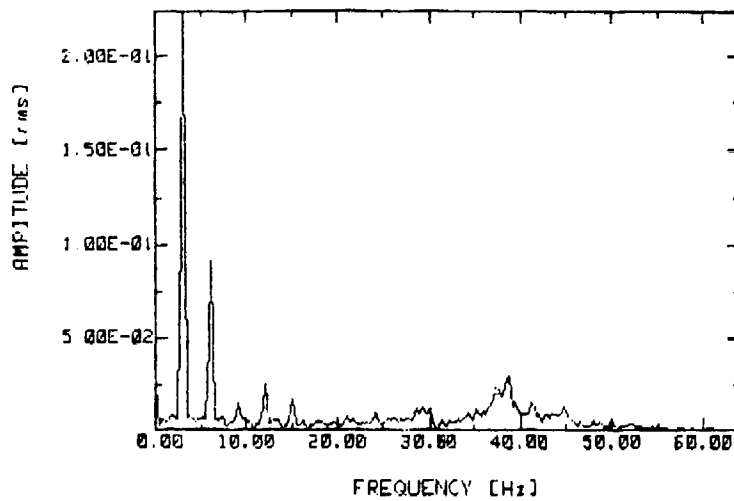
A SPEC 2 DELT\_5271

#AV: 10



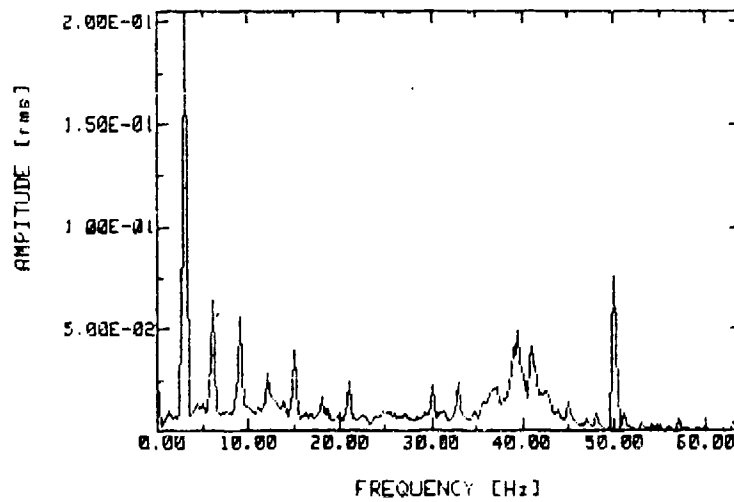
A SPEC 2 DELT\_5272

#RV: 10



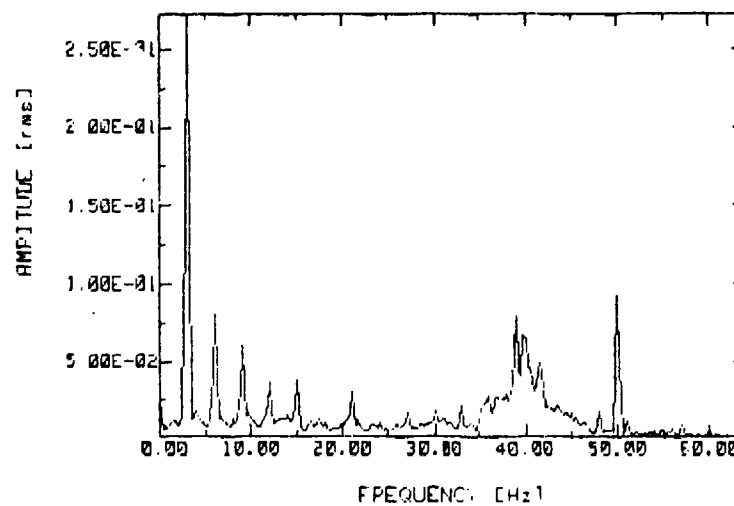
A SPEC 2 DELT\_5273

#RV: 10



A SPEC 2 DELT\_5274

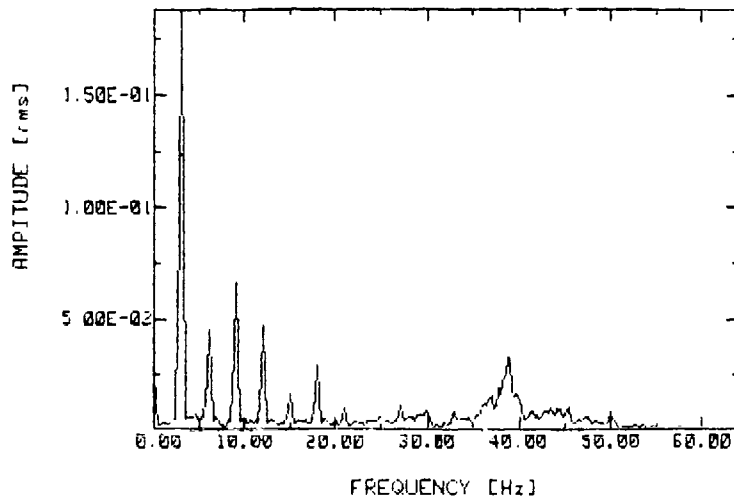
#RV: 10





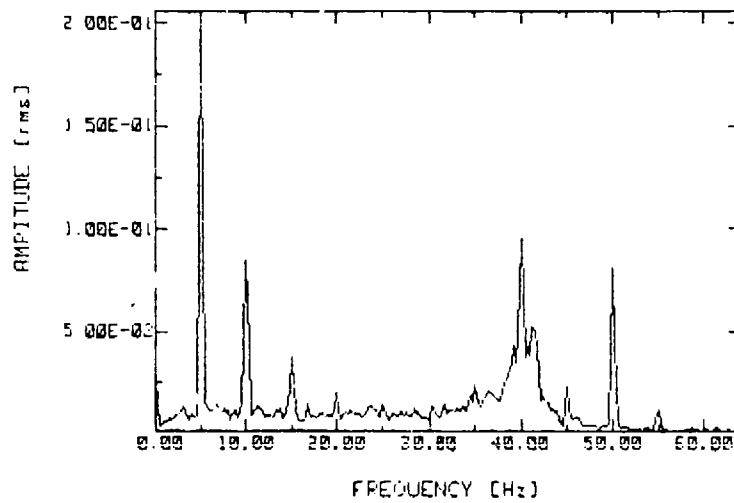
A SPEC 2 DELT\_6201

#AV: 10



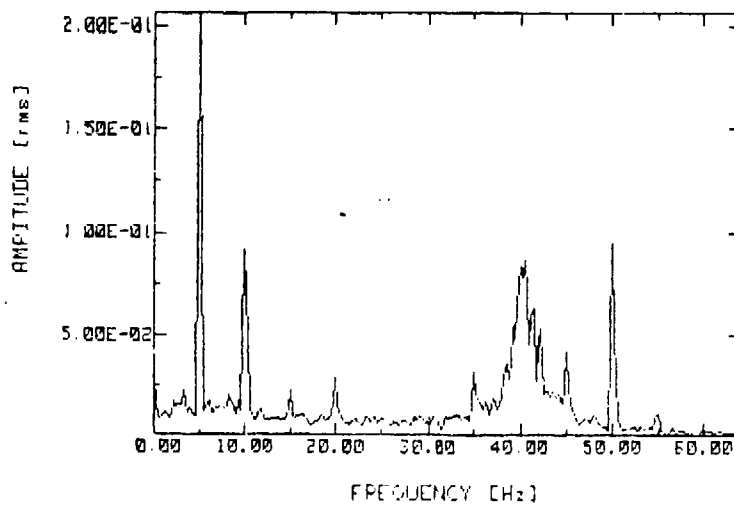
A SPEC 2 DELT\_6205

#AV: 10



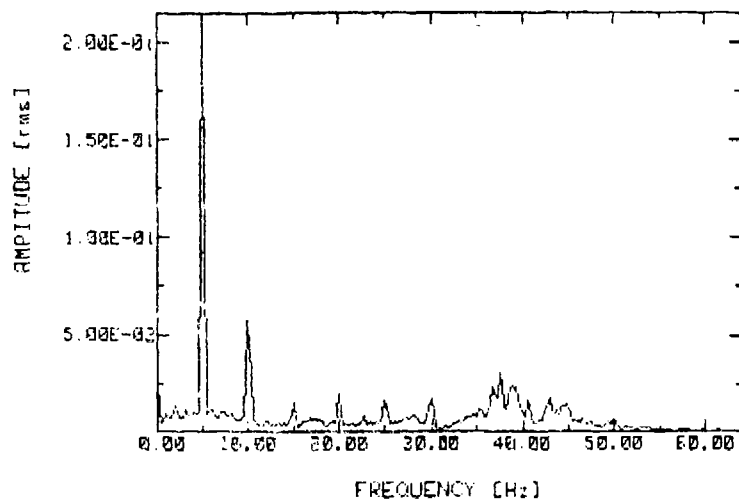
A SPEC 2 DELT\_6206

#AV: 10



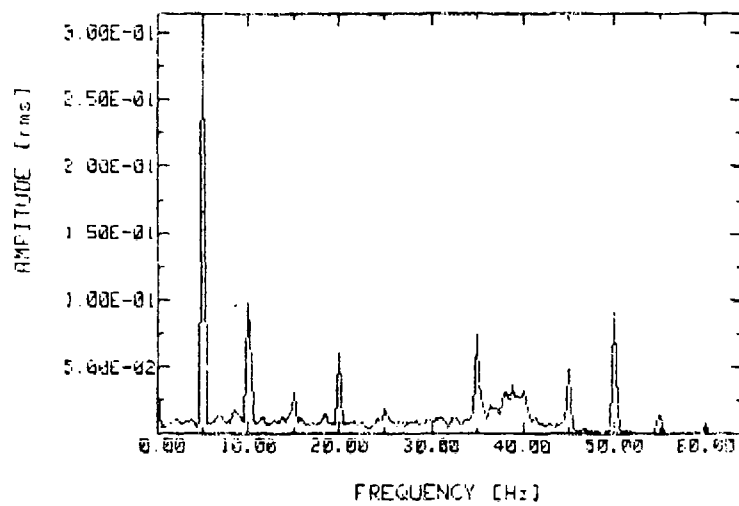
A SPEC 2 DELT\_6207

#AV: 10



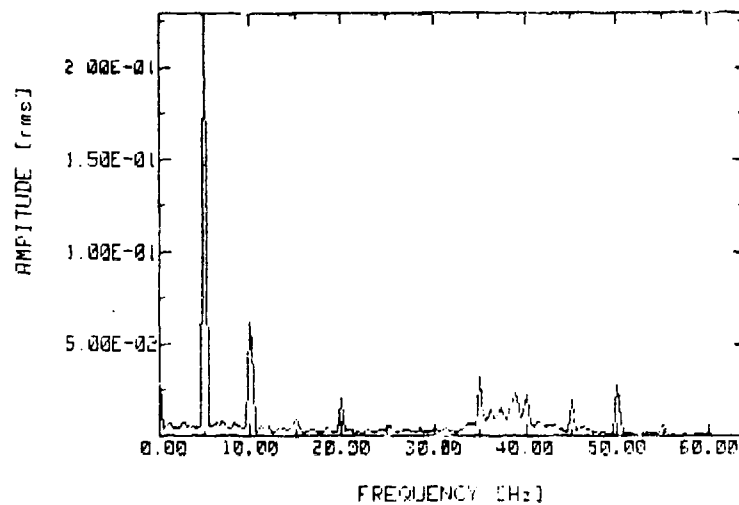
A SPEC 2 DELT\_6200

#AV: 10



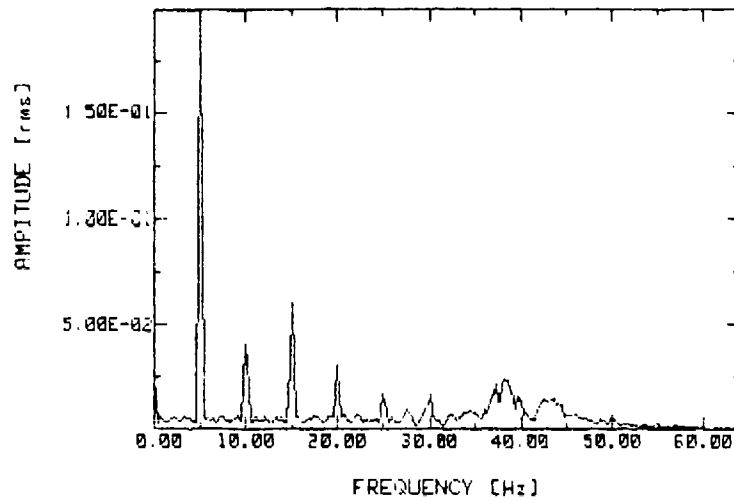
A SPEC 2 DELT\_6209

#AV: 10



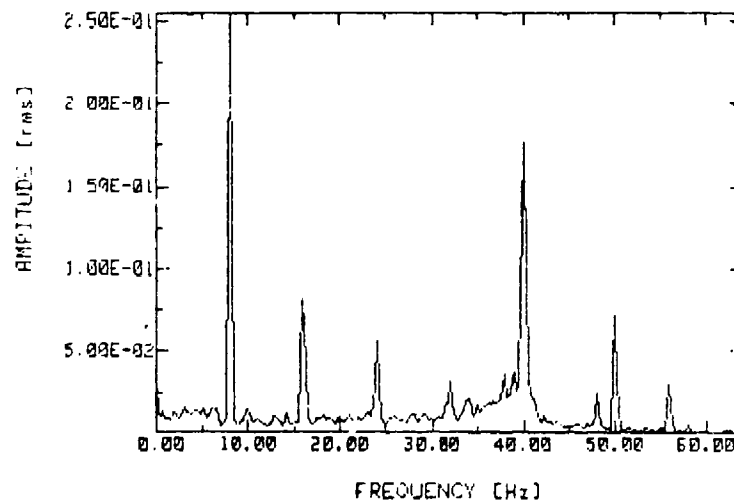
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#AV: 10



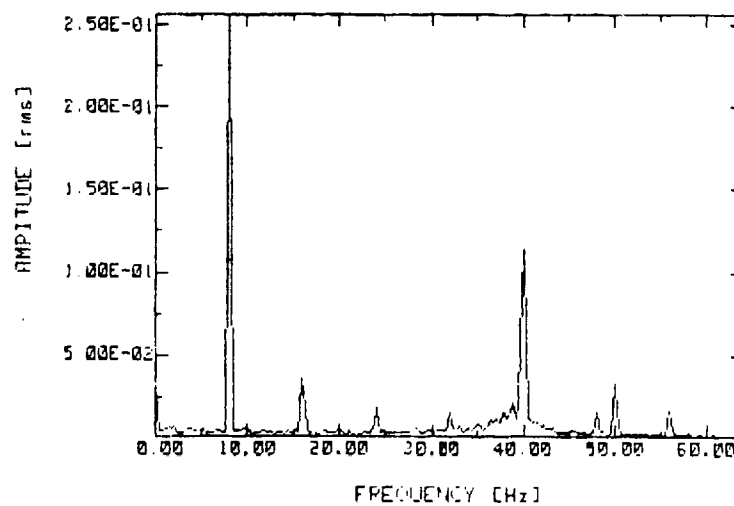
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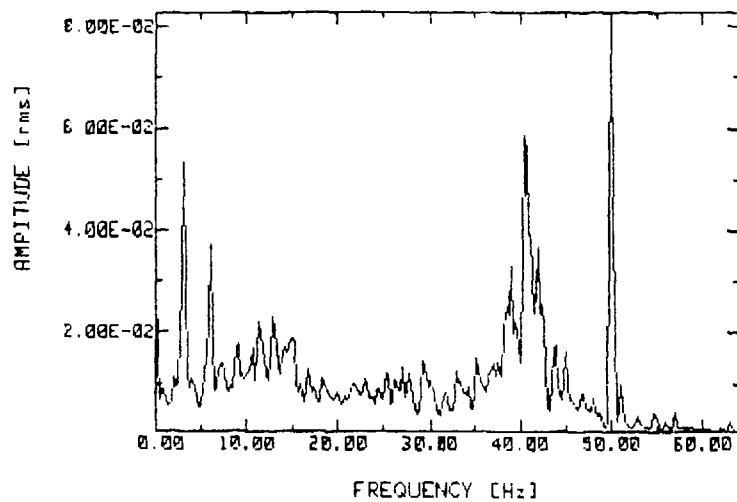
A SPEC 2 DELT\_6210

#AV: 10



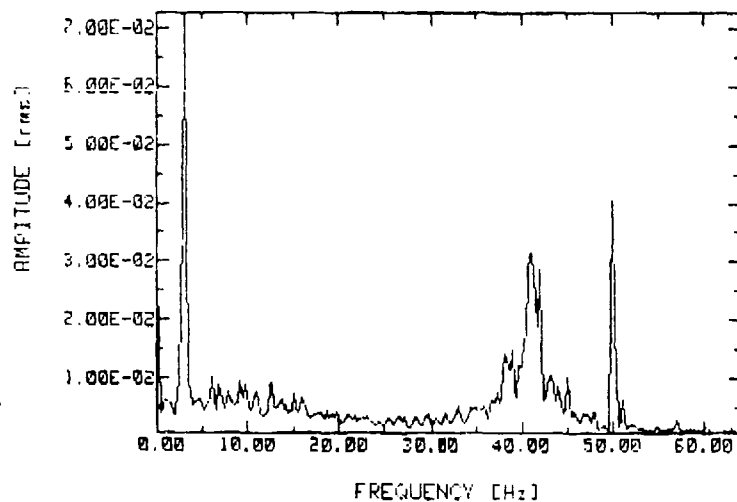
R SPEC 2 DELT\_6225

#RV: 10



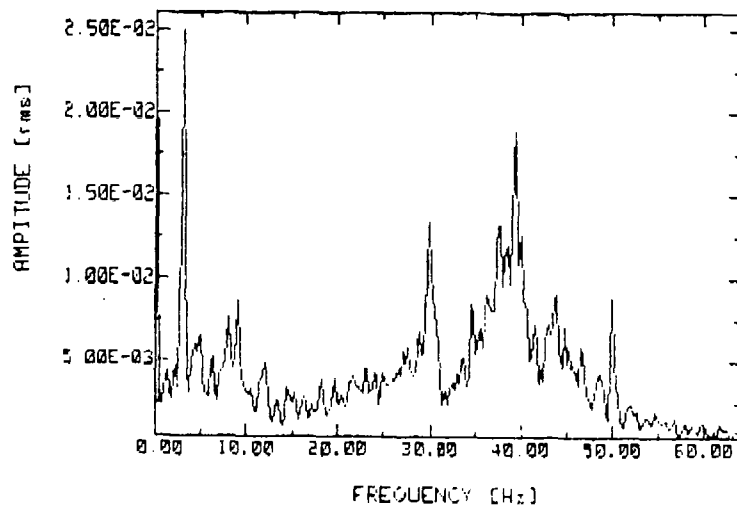
R SPEC 2 DELT\_6226

#RV: 10



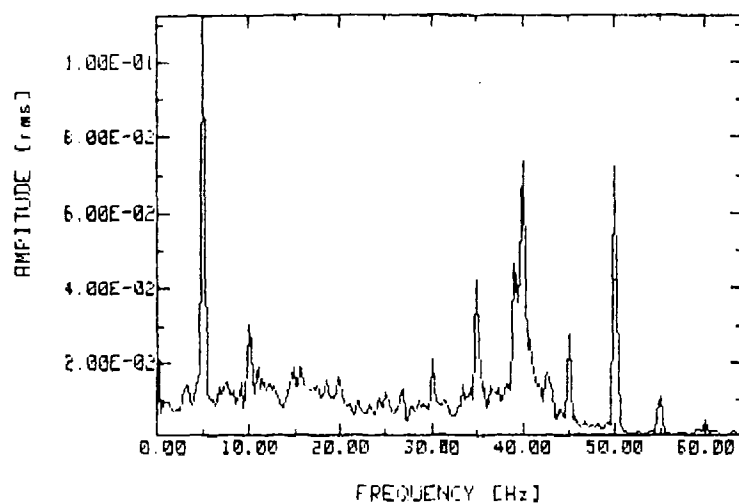
R SPEC 2 DELT\_6227

#RV: 10



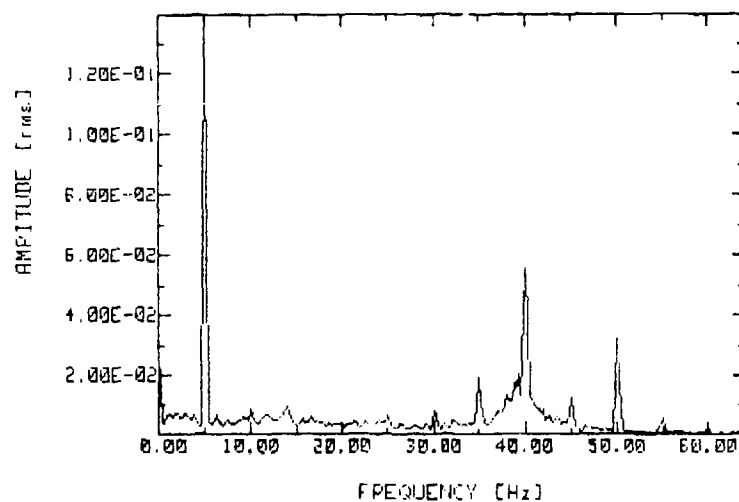
A SPEC 2 DELT\_6233

#RV: 10



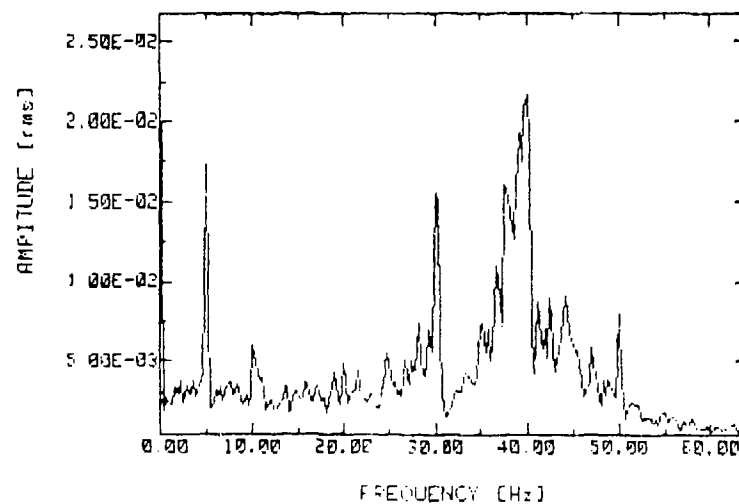
A SPEC 2 DELT\_6234

#RV: 10



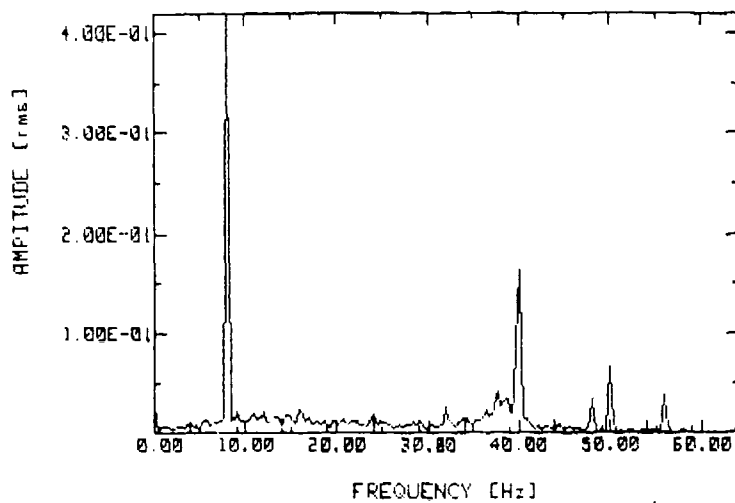
A SPEC 2 DELT\_6235

#RV: 10



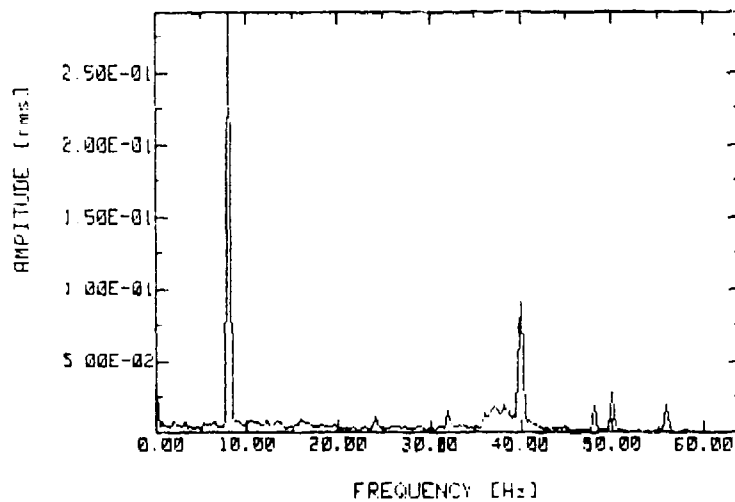
A SPEC 2 DELT\_6242

#RV: 10



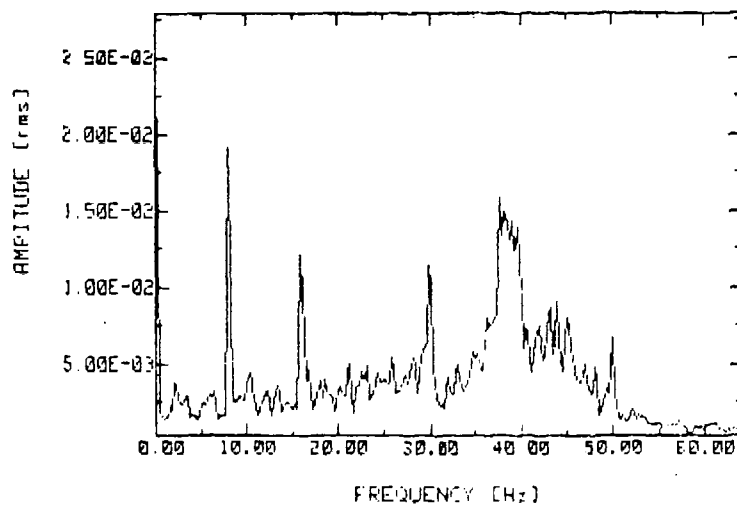
A SPEC 2 DELT\_6243

#RV: 10



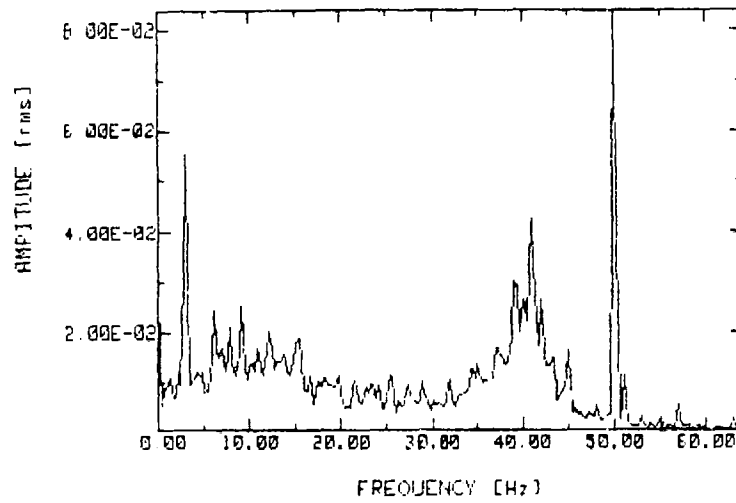
A SPEC 2 DELT\_6244

#RV: 10



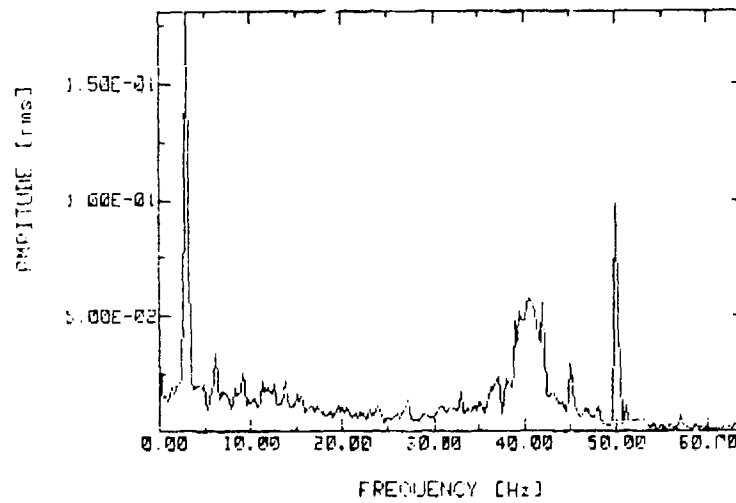
R SPEC 2 DELT\_6251

#RV: 10



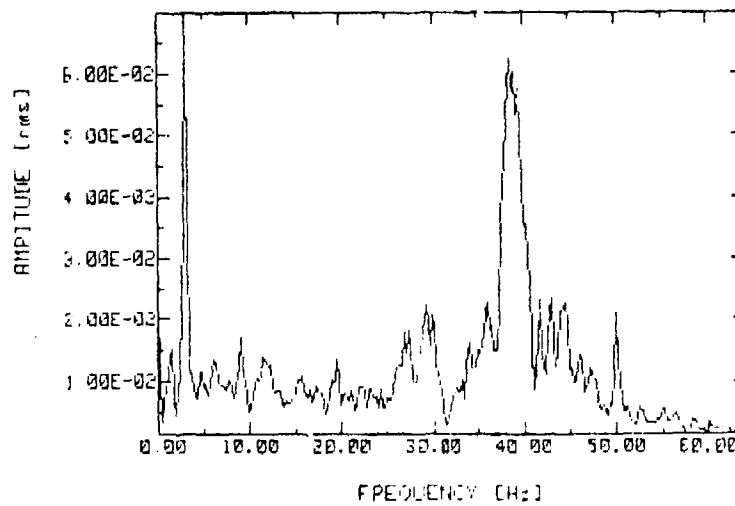
R SPEC 2 DELT\_6252

#RV: 10



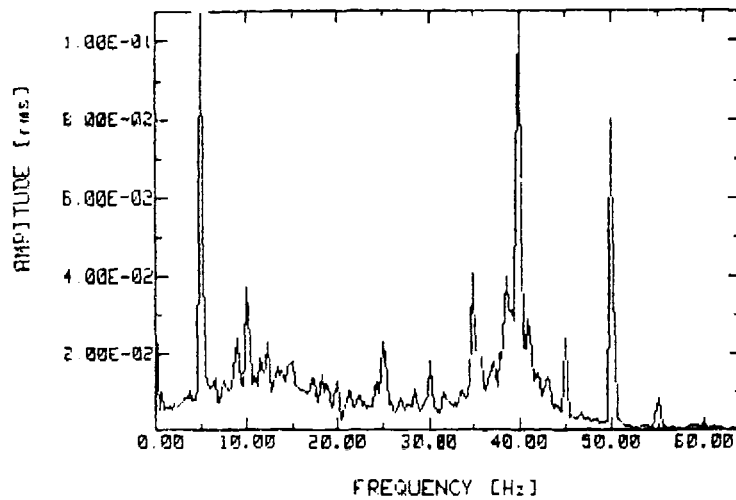
R SPEC 2 DELT\_6253

#RV: 10



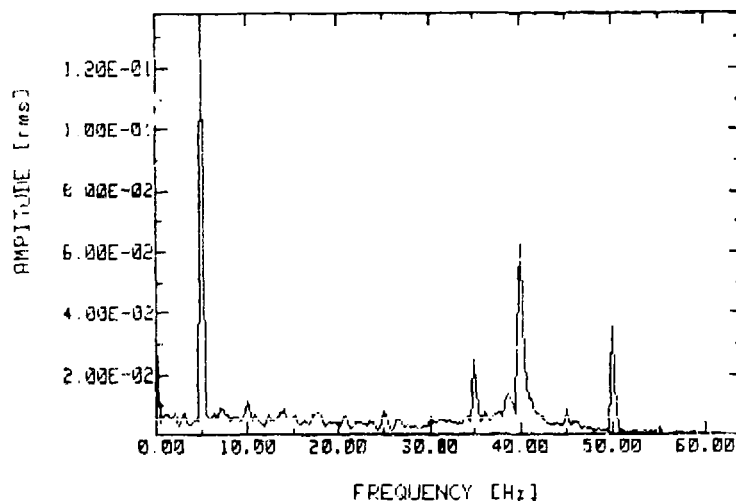
A SPEC 2 DELT\_6257

#AV: 10



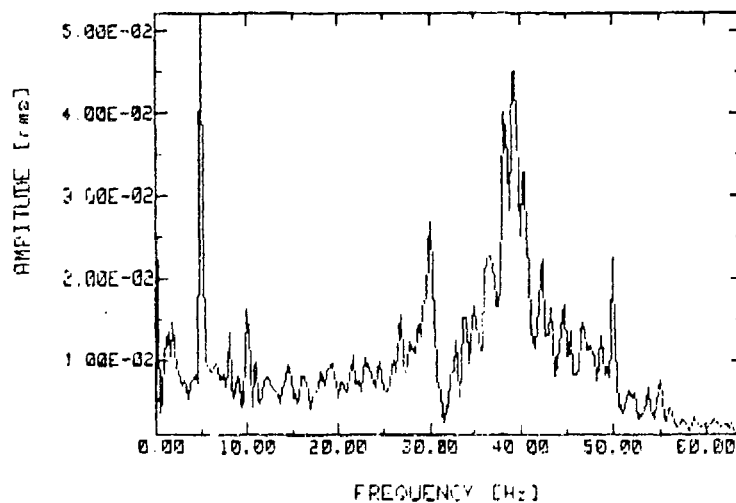
A SPEC 2 DELT\_6258

#AV: 10



A SPEC 2 DELT\_6259

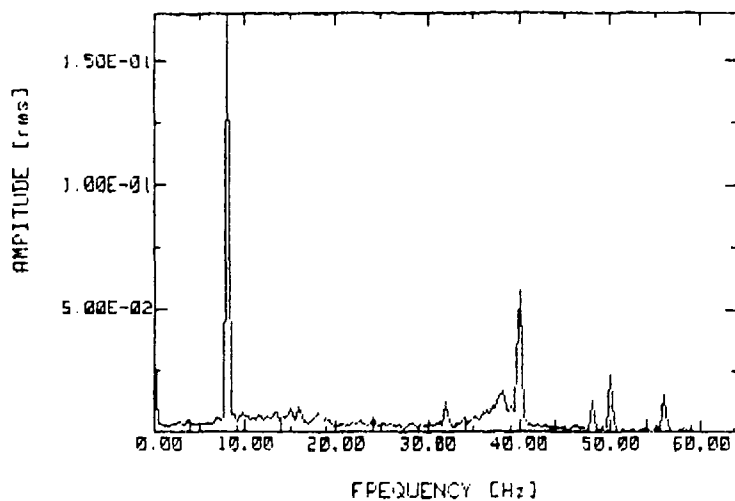
#AV: 10





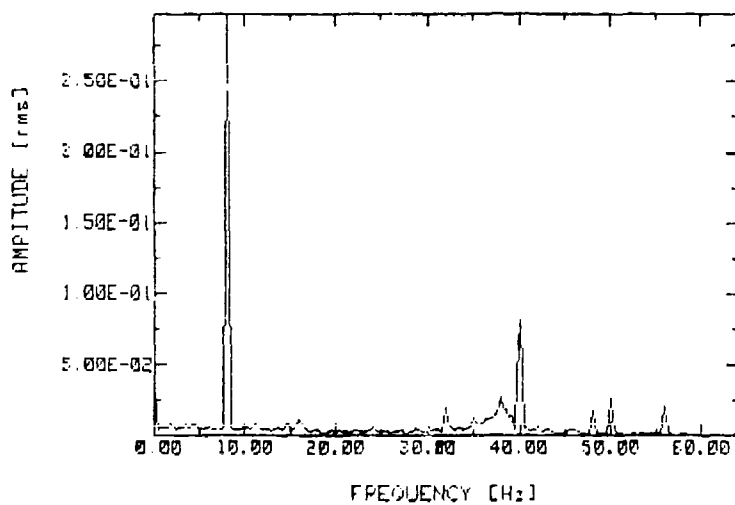
A SPEC 2 DELT\_6266

#RV: 10



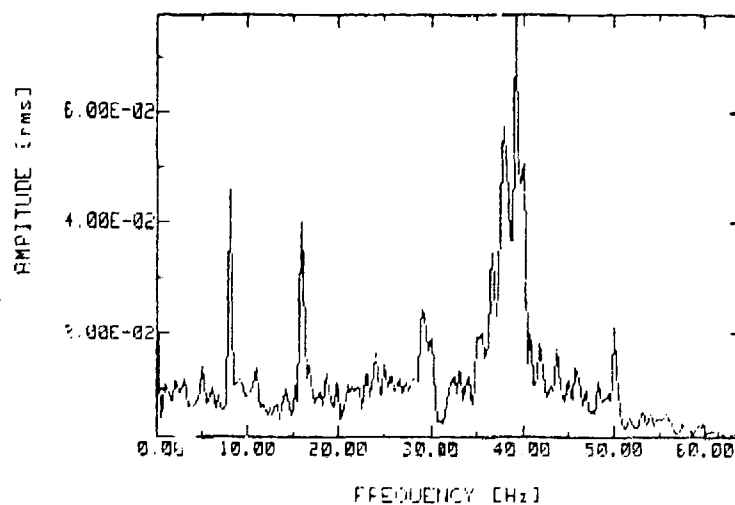
A SPEC 2 DELT\_6267

#RV: 10



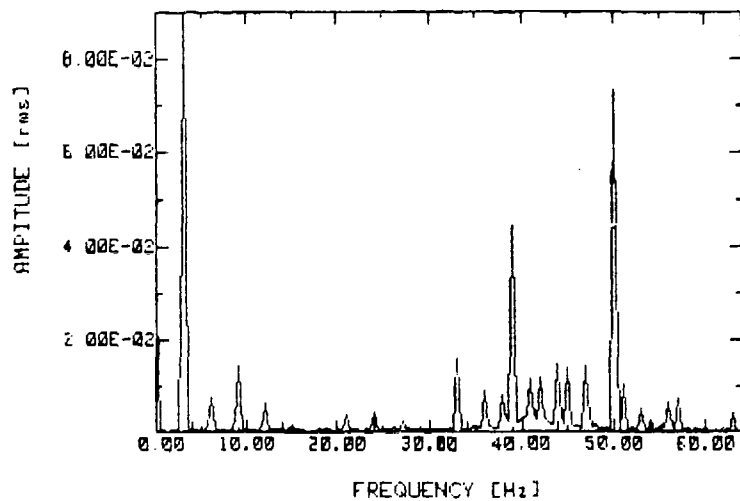
A SPEC 2 DELT\_6268

#RV: 10



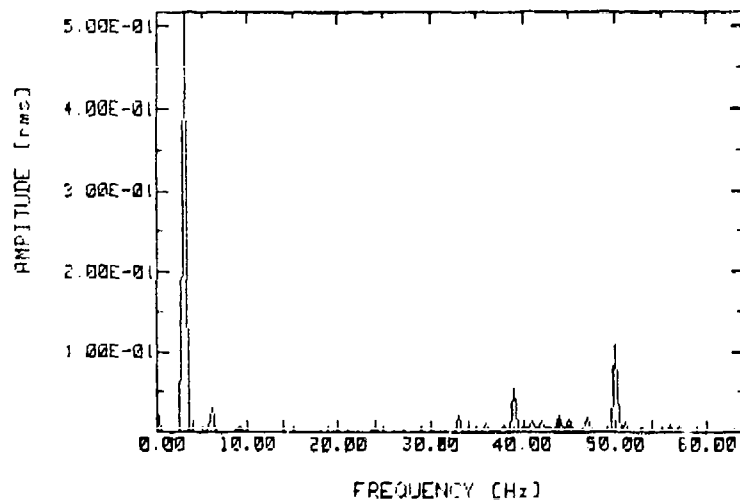
R SPEC 2 DELT\_7104

#RV: 10



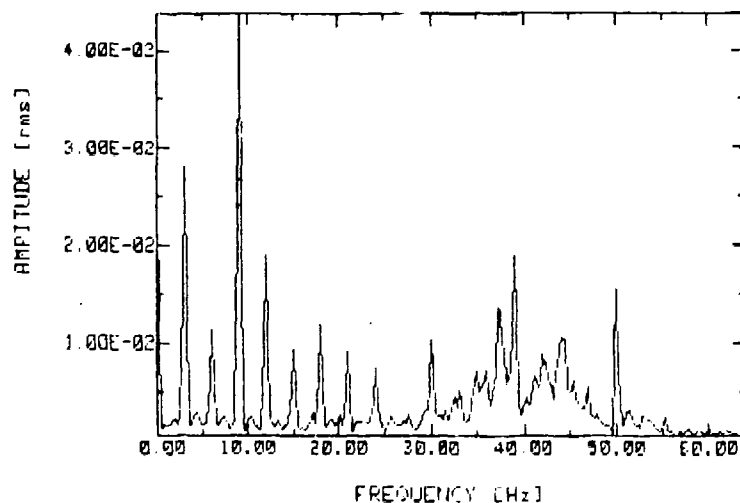
R SPEC 2 DELT\_7105

#RV: 10



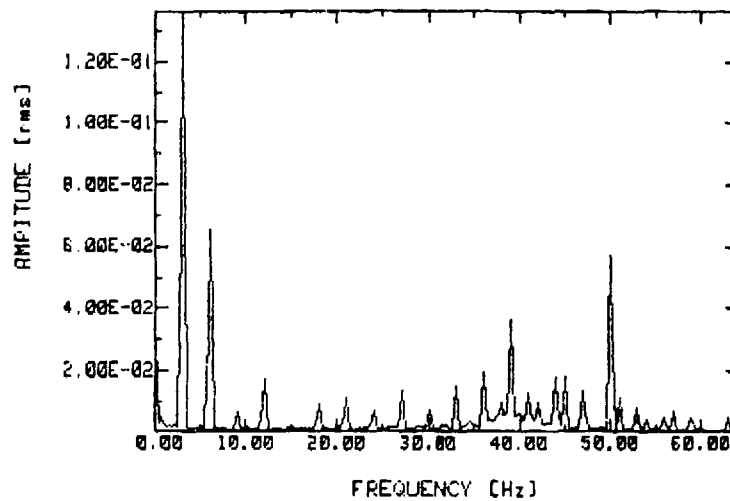
R SPEC 2 DELT\_7106

#RV: 10



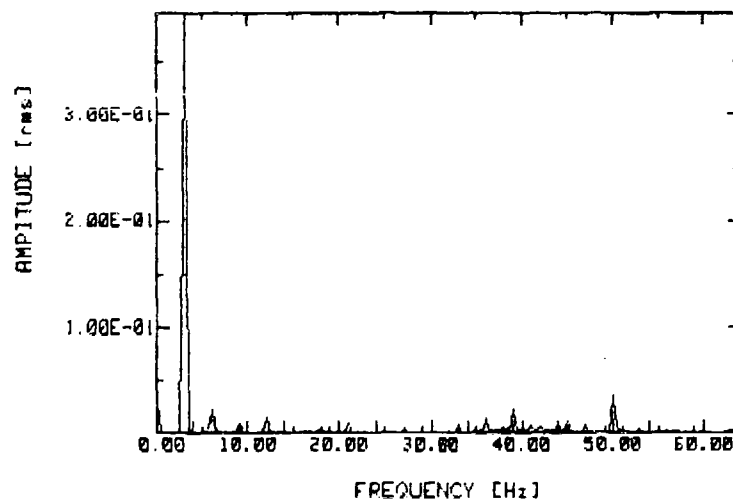
A SPEC 2 DELT\_7107

#AV: 10



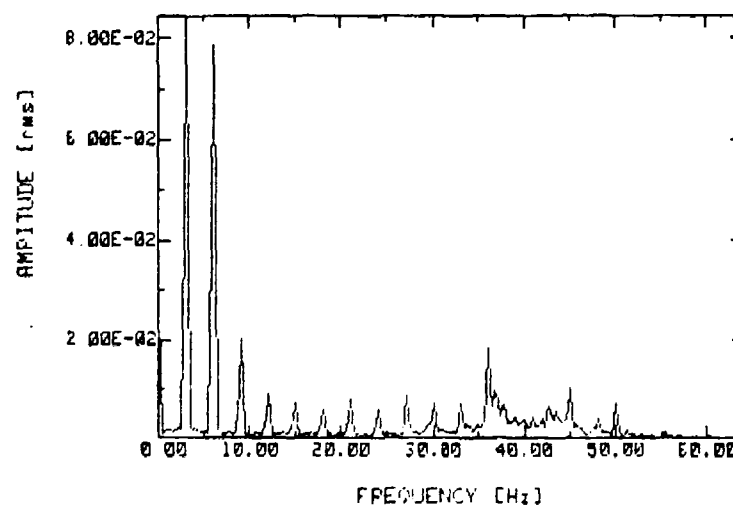
A SPEC 2 DELT\_7108

#AV: 10

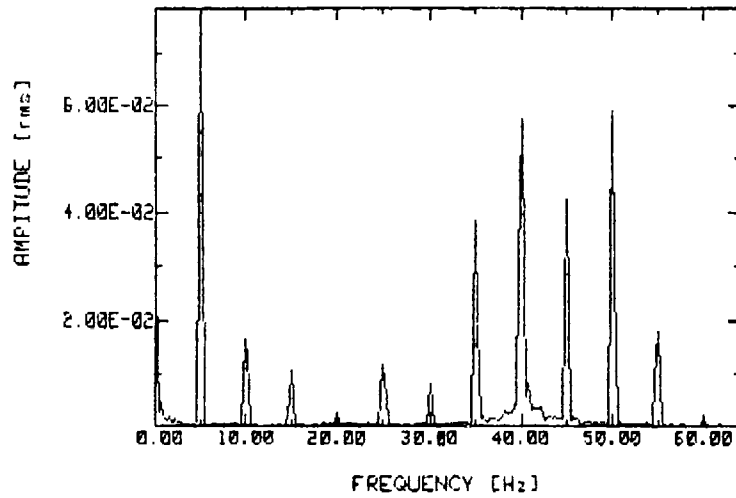


A SPEC 2 DELT\_7109

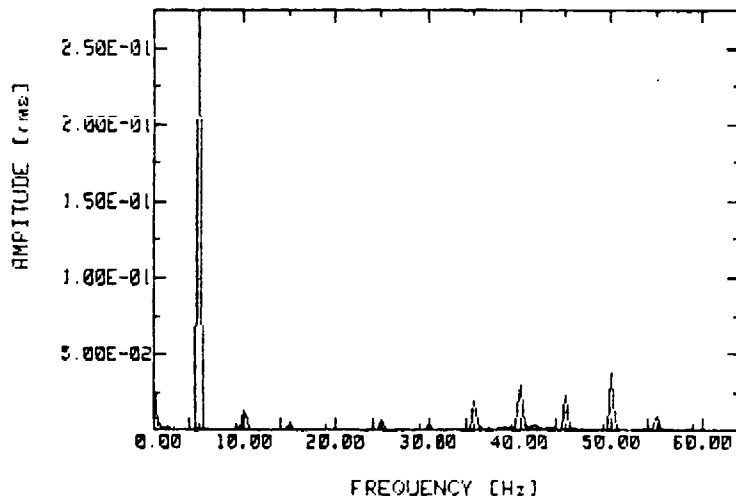
#AV: 10



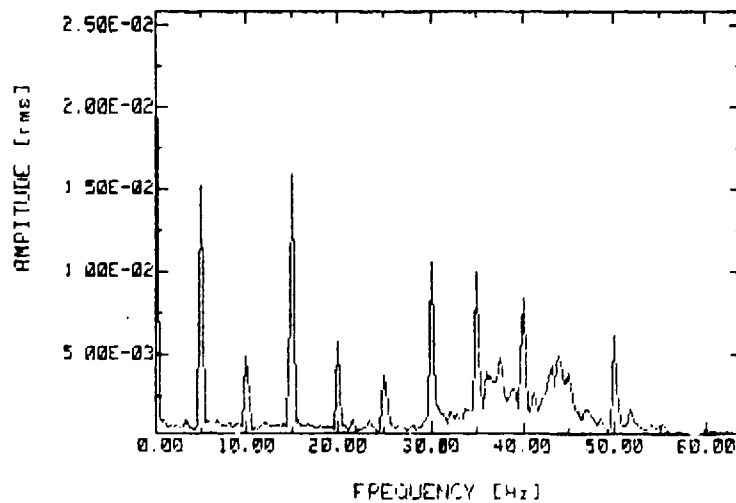
A SPEC 2 DELT\_7113 #RV: 10



A SPEC 2 DELT\_7114 #RV: 10

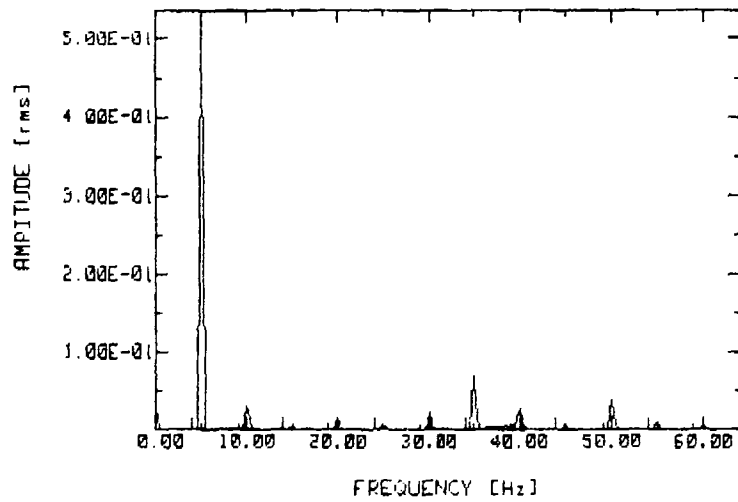


A SPEC 2 DELT\_7115 #RV: 10



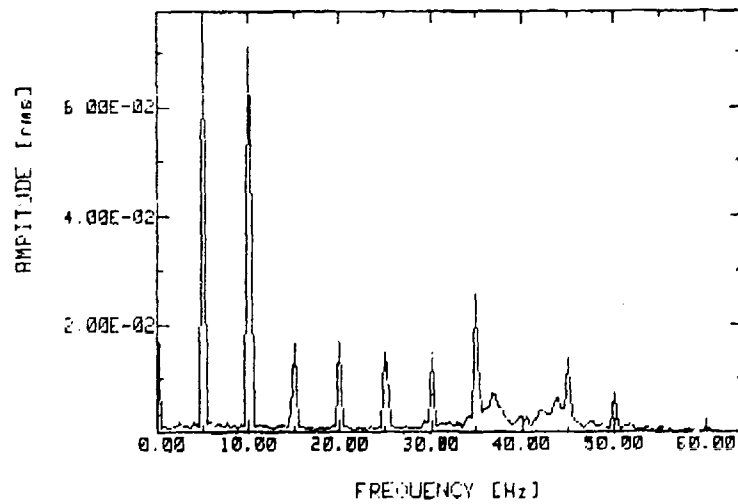
R SPEC 2 DELT\_7116

#RV: 10



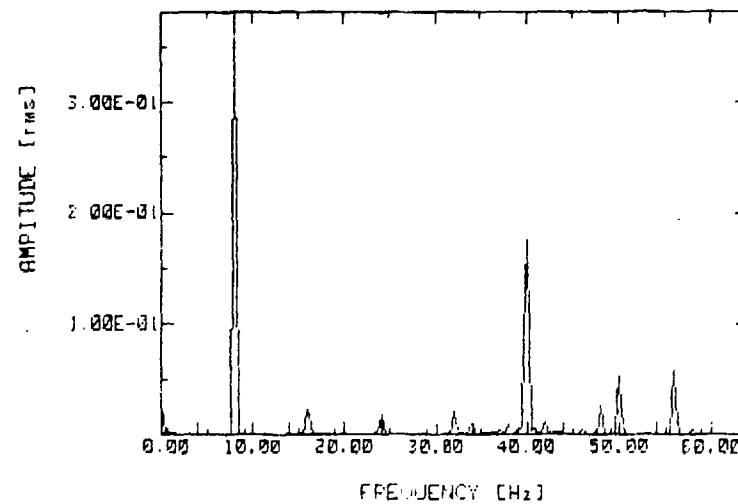
R SPEC 2 DELT\_7117

#RV: 10



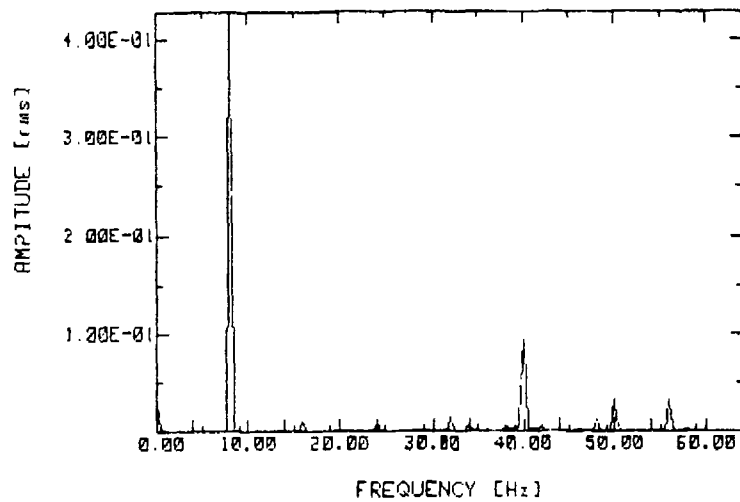
R SPEC 2 DELT\_7124

#RV: 10



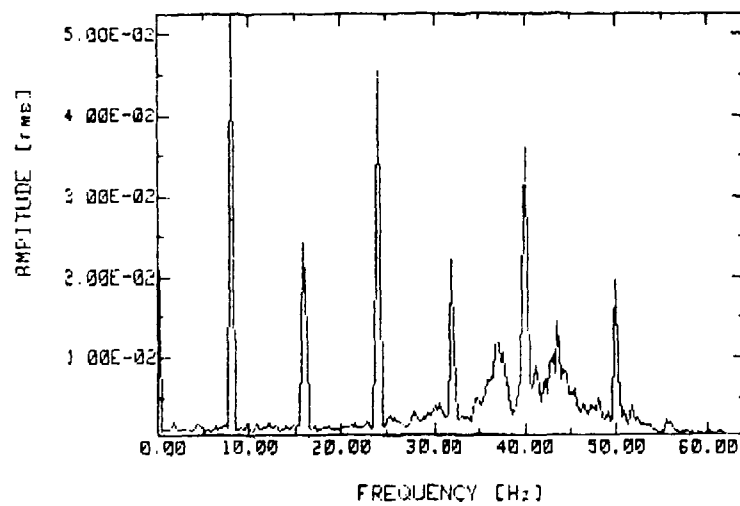
A SPEC 2 DELT\_7125

#RV: 10



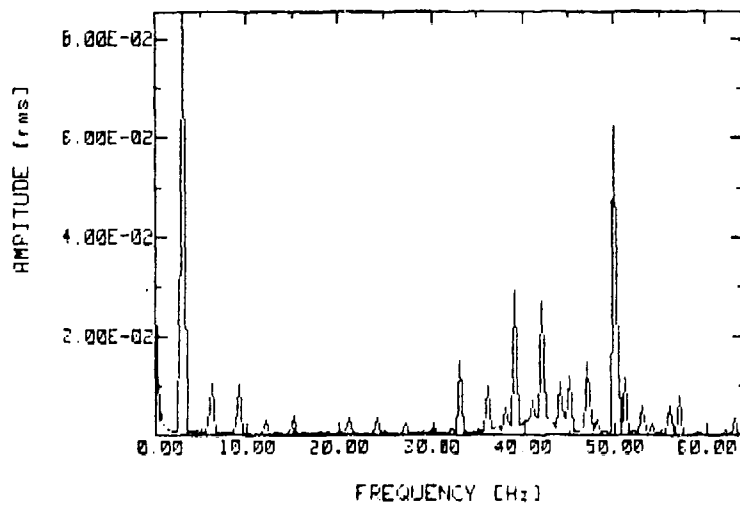
A SPEC 2 DELT\_7126

#RV: 10



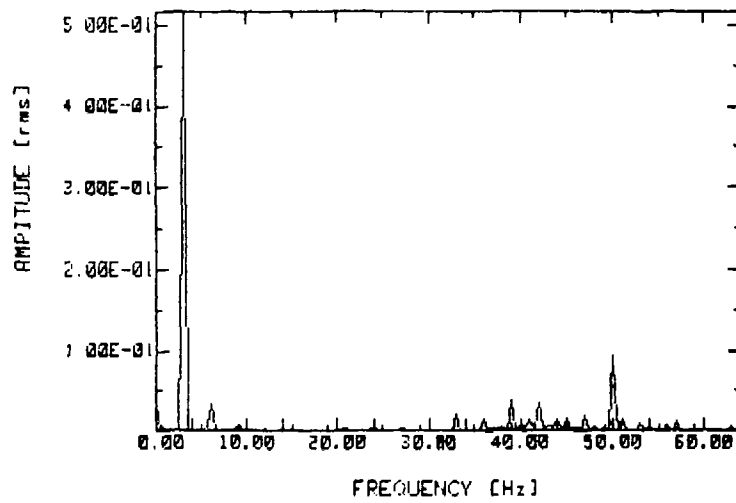
A SPEC 2 DELT\_7133

#RV: 10



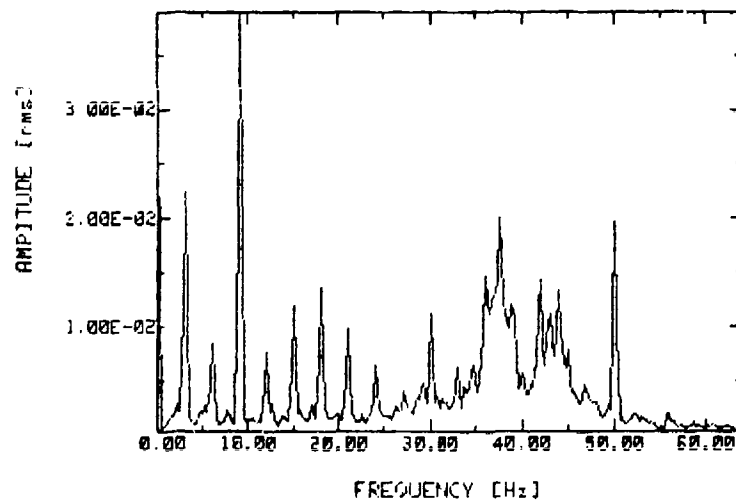
A SPEC 2 DELT\_7134

#AV: 10



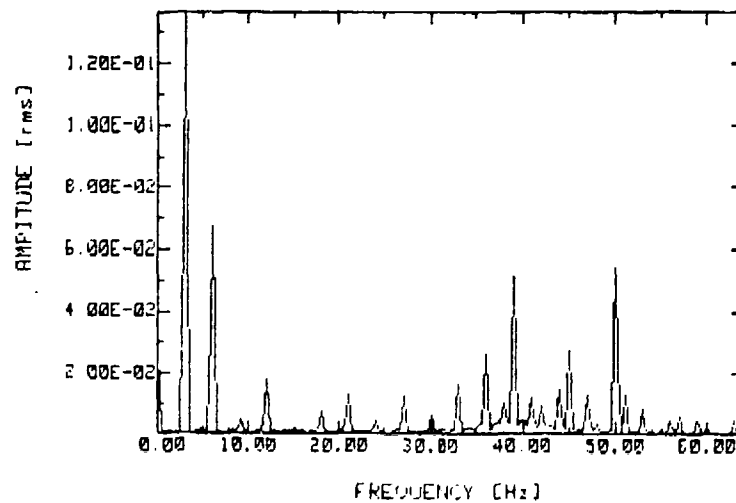
A SPEC 2 DELT\_7135

#AV: 10



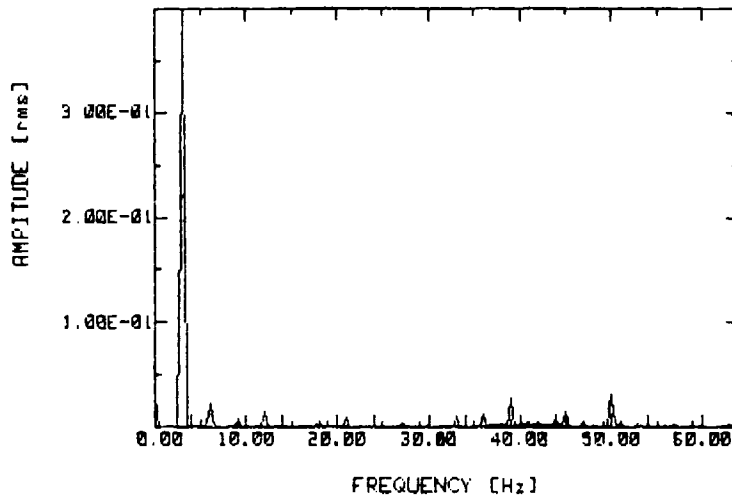
A SPEC 2 DELT\_7136

#AV: 10



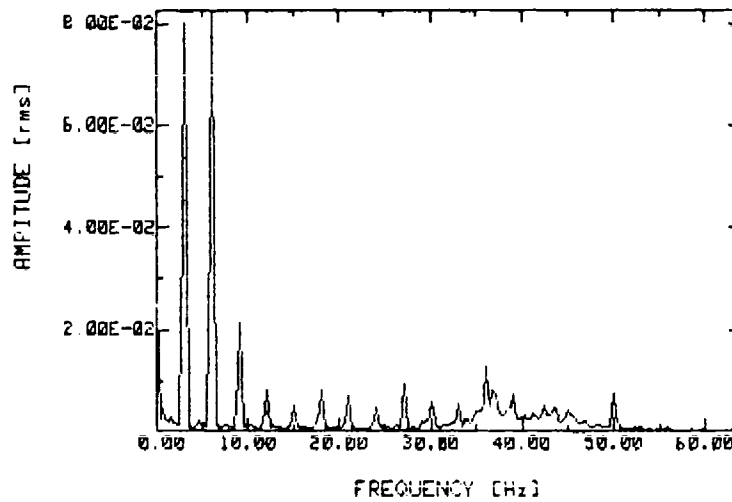
A SPEC 2 DELT\_7137

#RV: 10



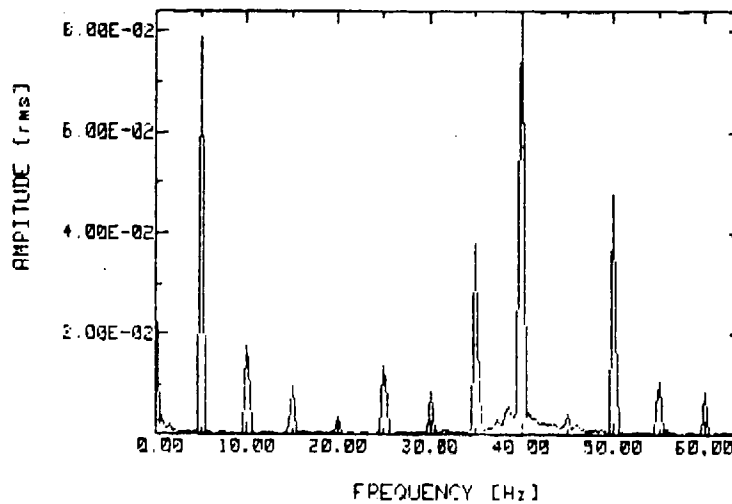
A SPEC 2 DELT\_7138

#RV: 10



A SPEC 2 DELT\_7142

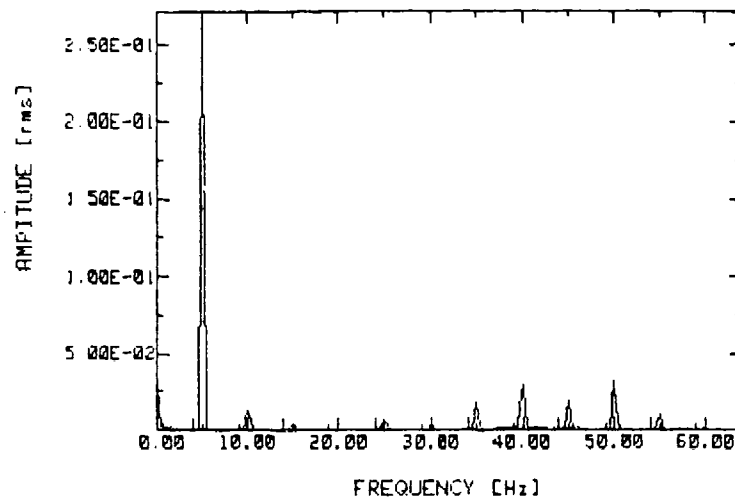
#RV: 10





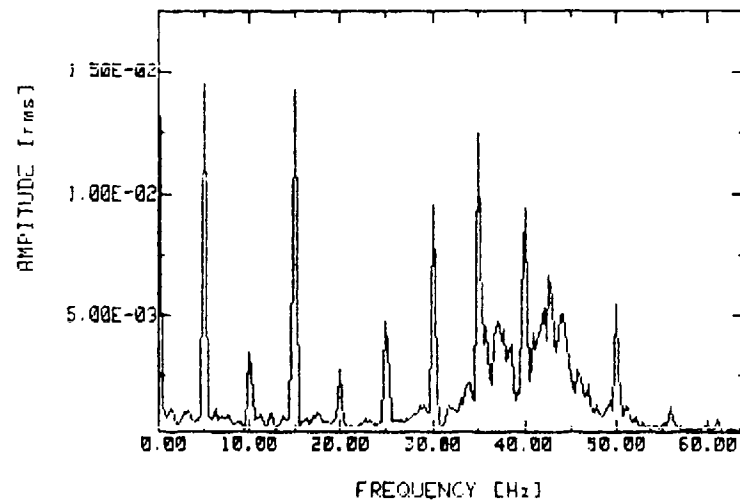
A SPEC 2 DELT\_7143

#RV: 10



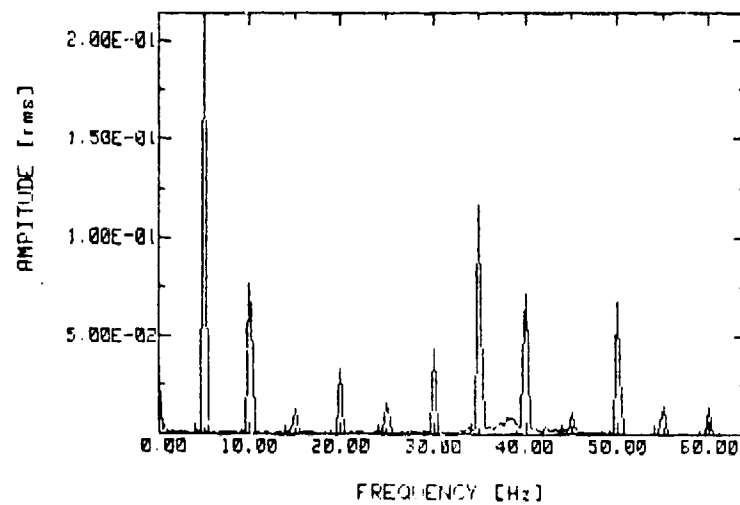
A SPEC 2 DELT\_7144

#RV: 10



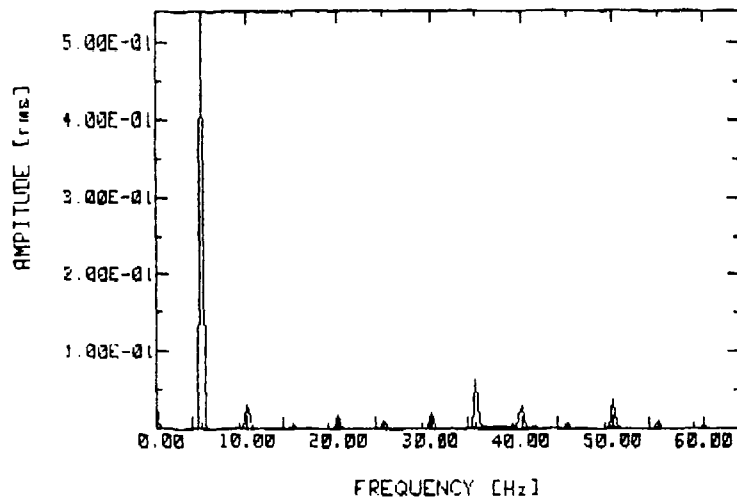
A SPEC 2 DELT\_7145

#RV: 10



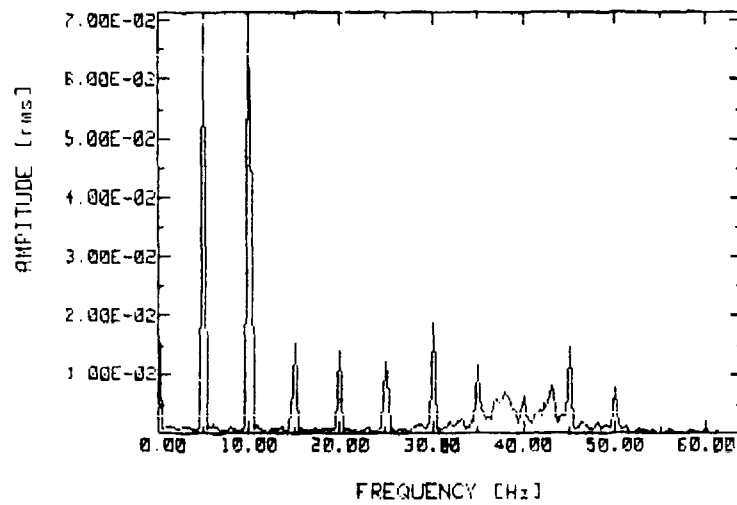
A SPEC 2 DELT\_7146

#RV: 10



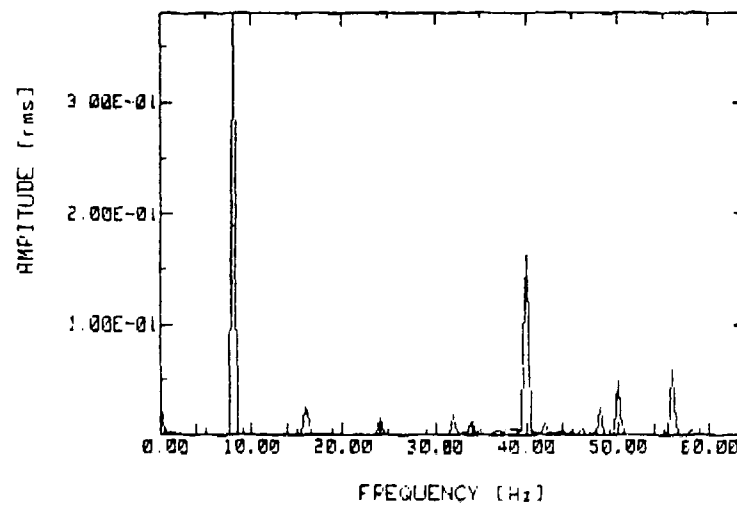
A SPEC 2 DELT\_7147

#RV: 10



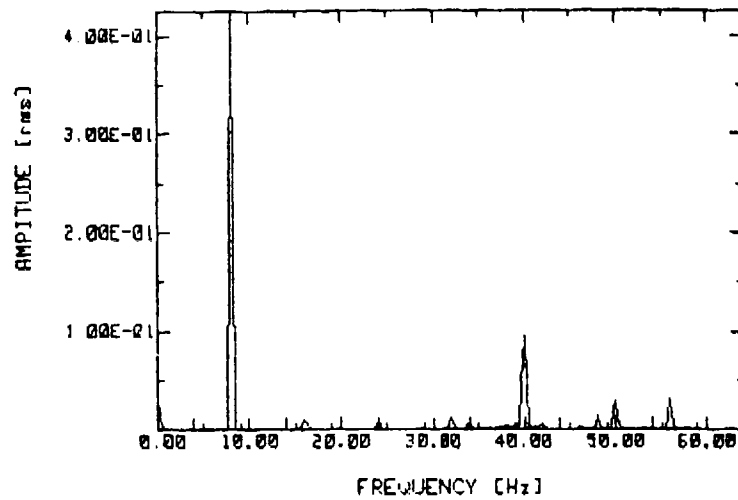
A SPEC 2 DELT\_7153

#RV: 10



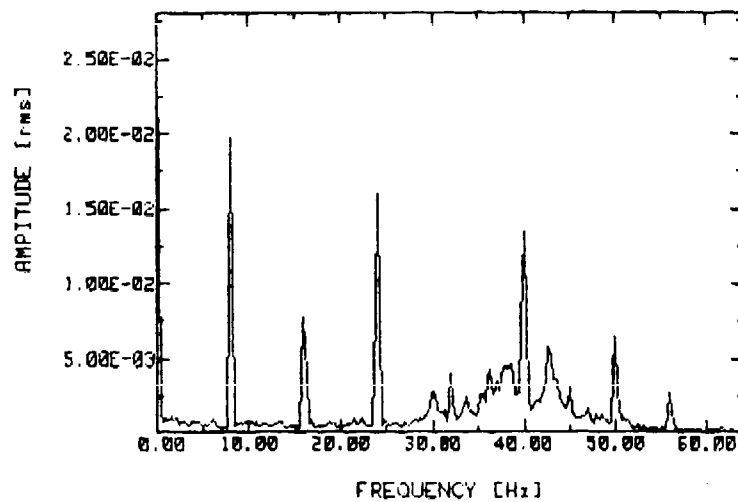
A SPEC 2 DELT\_7154

#AV: 10



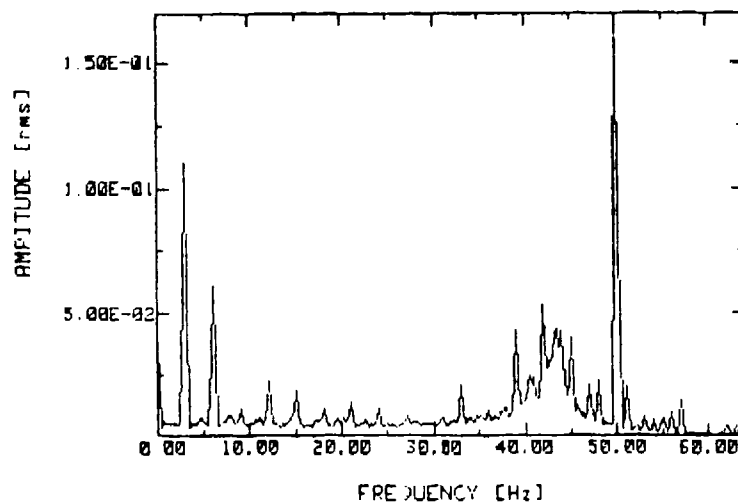
A SPEC 2 DELT\_7155

#AV: 10



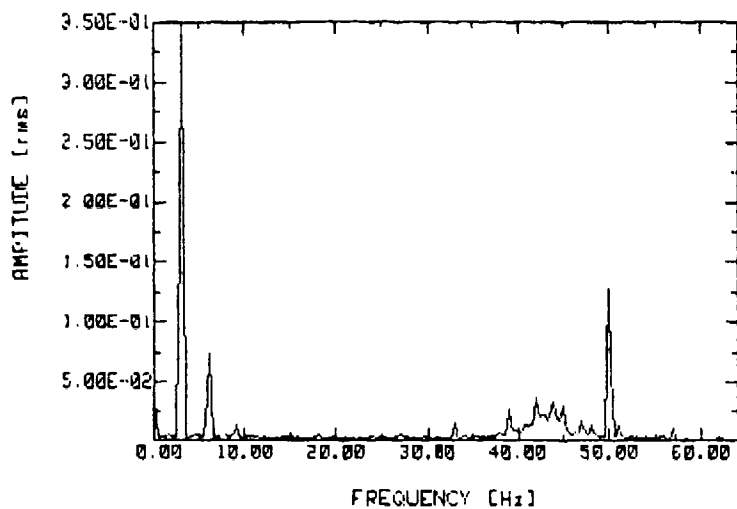
A SPEC 2 DELT\_7162

#AV: 20



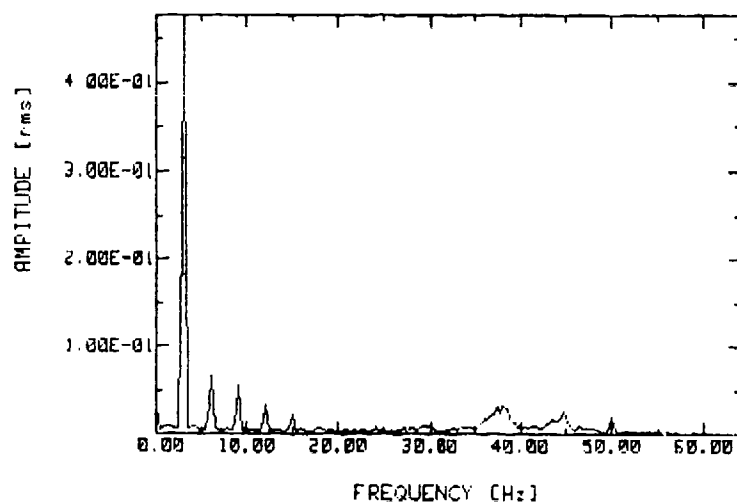
A SPEC 2 DELT\_7163

#AV: 20



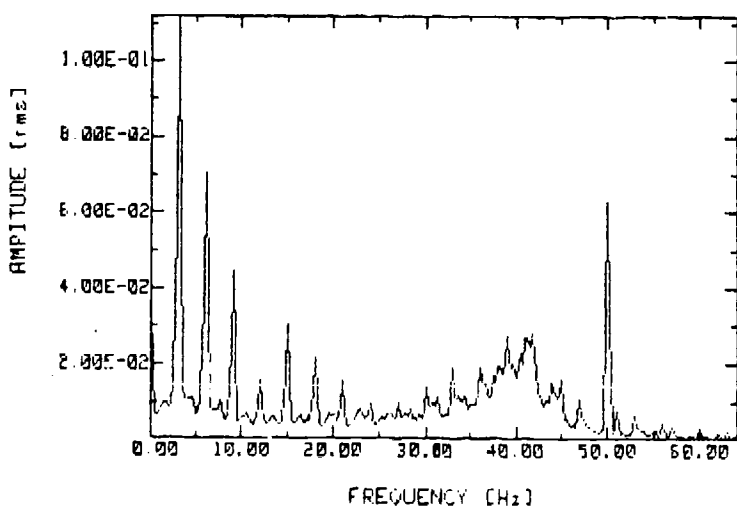
A SPEC 2 DELT\_7164

#AV: 20



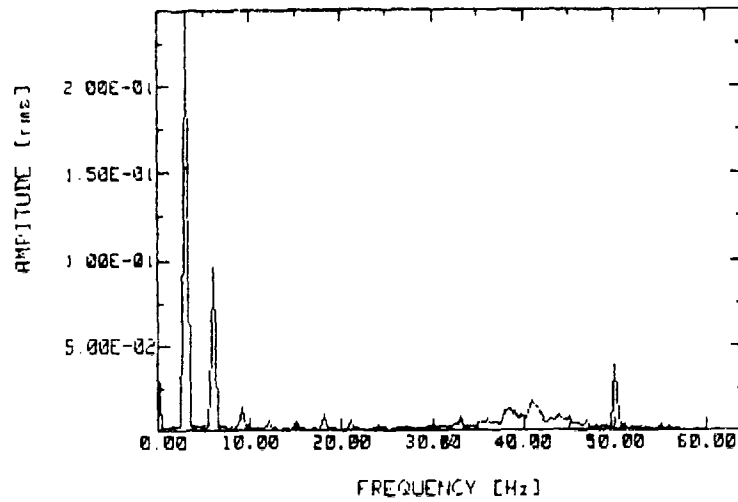
A SPEC 2 DELT\_7165

#AV: 20



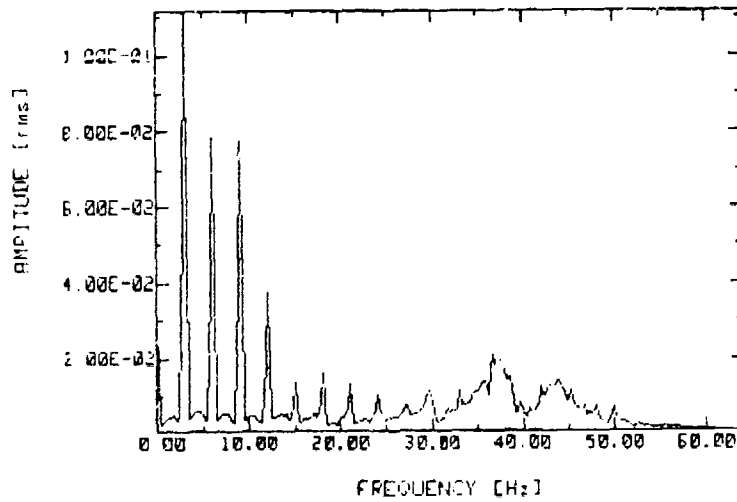
A SPEC 2 DELT\_7166

#RV: 20



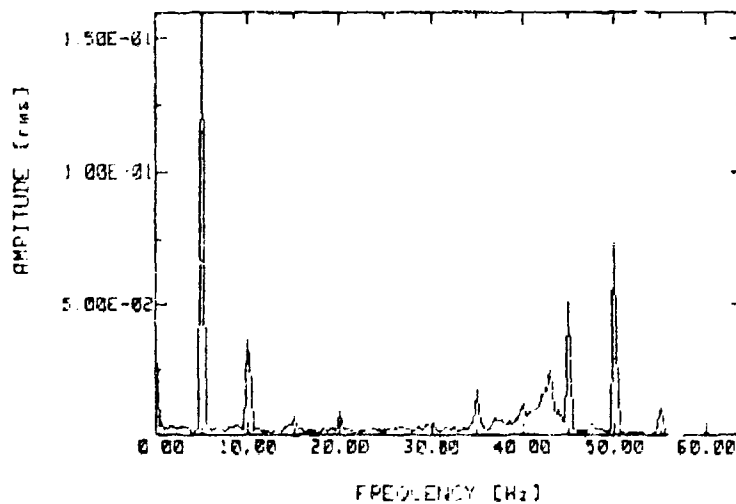
A SPEC 2 DELT\_7167

#RV: 20



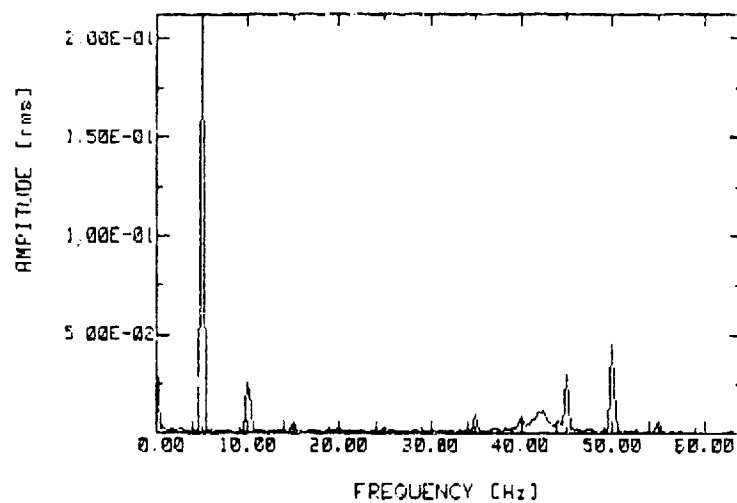
A SPEC 2 DELT\_7171

#RV: 10



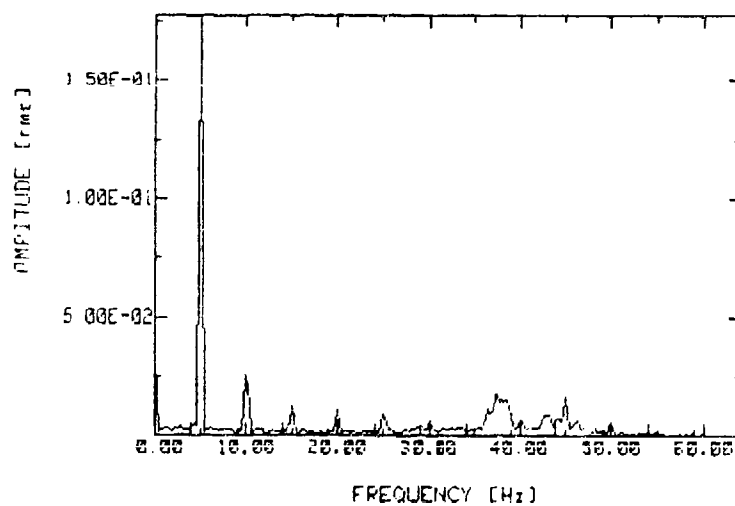
A SPEC 2 DELT\_7172

#RV: 10



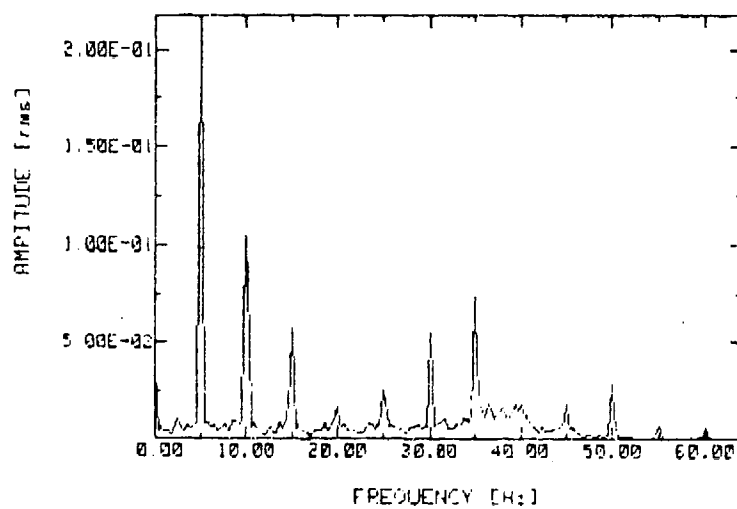
A SPEC 2 DELT\_7173

#RV: 10



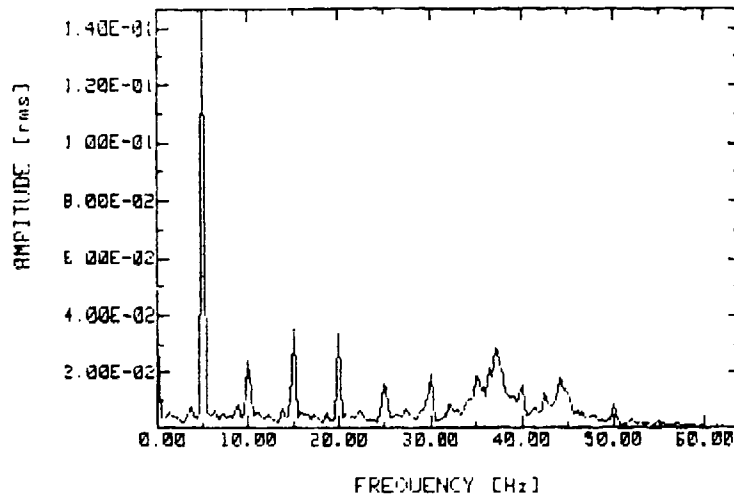
A SPEC 2 DELT\_7174

#RV: 10



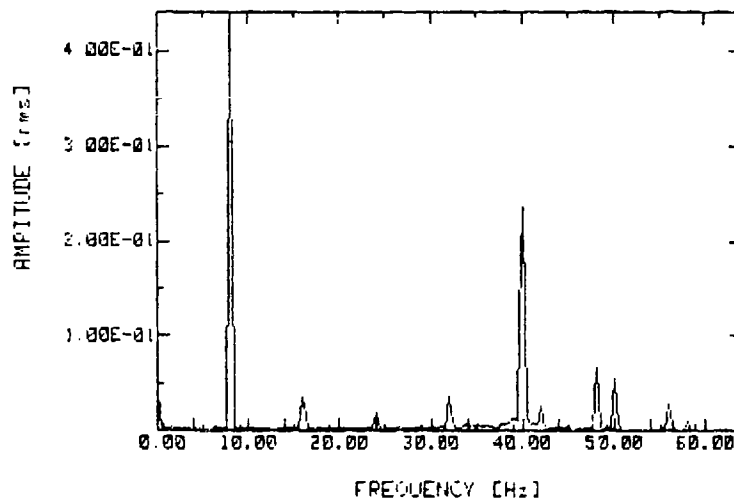
R SPEC 2 DELT\_7201

#AV: 10



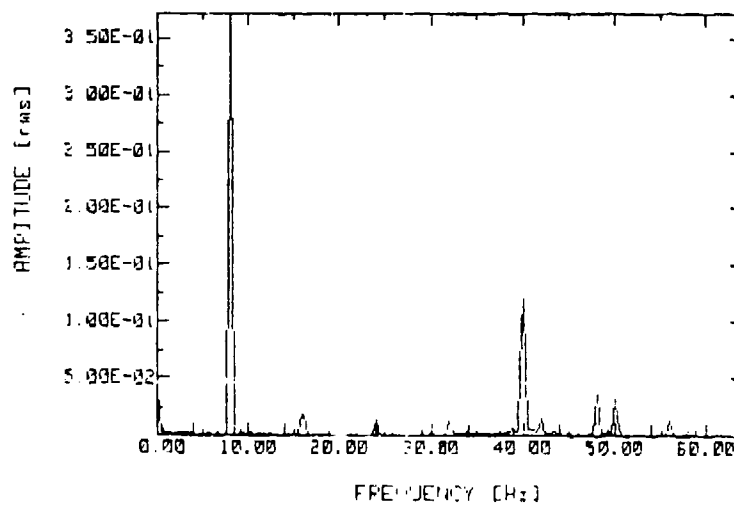
A SPEC 2 DELT\_7200

#AV: 10



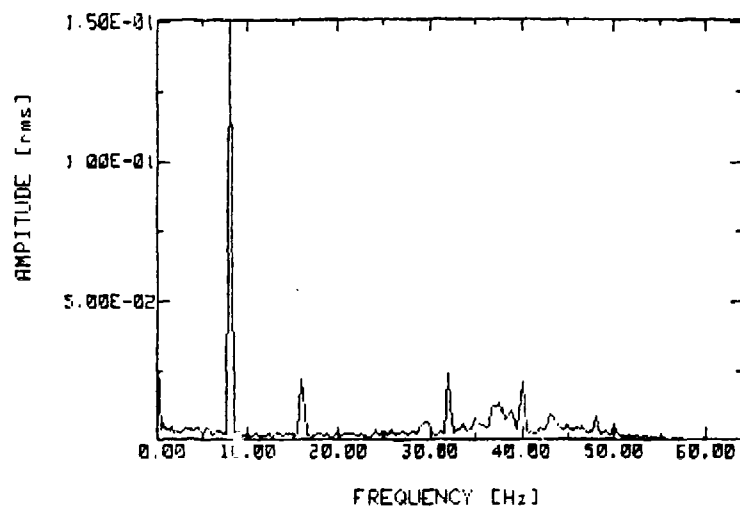
A SPEC 2 DELT\_7209

#AV: 10



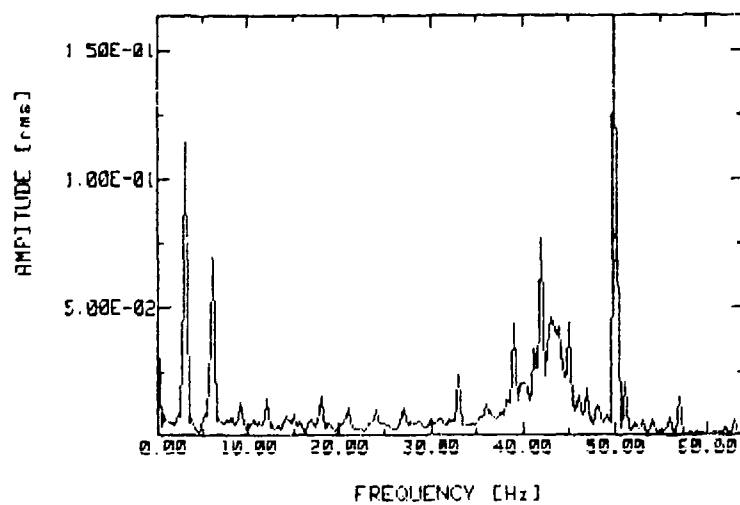
A SPEC 2 DELT\_7210

#AV: 10



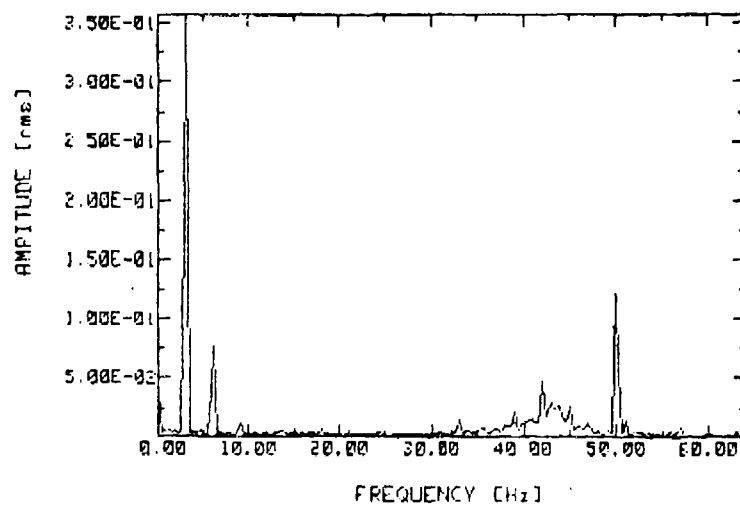
A SPEC 2 DELT\_7217

#AV: 10



A SPEC 2 DELT\_7218

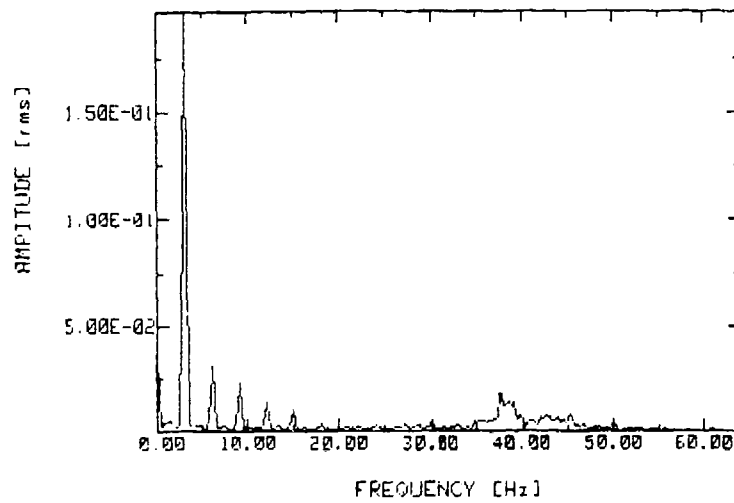
#AV: 10





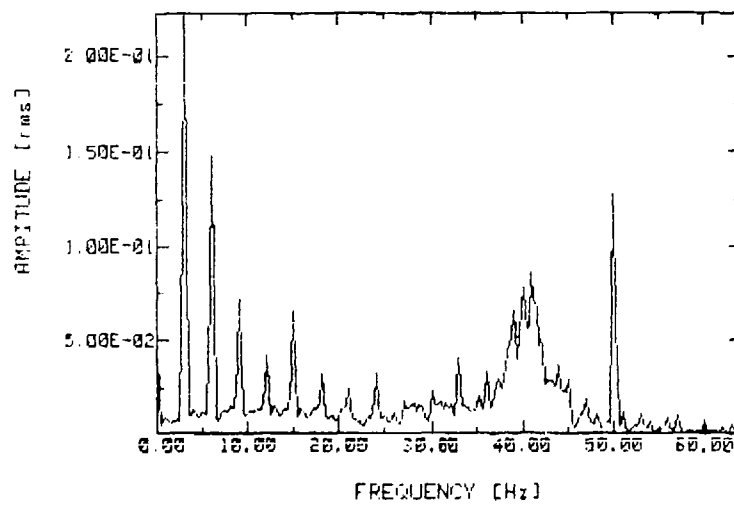
A SPEC 2 DELT\_7219

#RV: 10



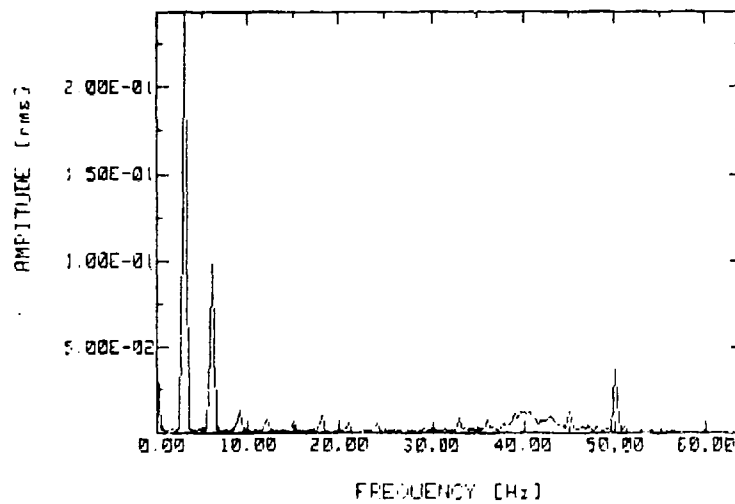
A SPEC 3 DELT\_7220

#RV: 10



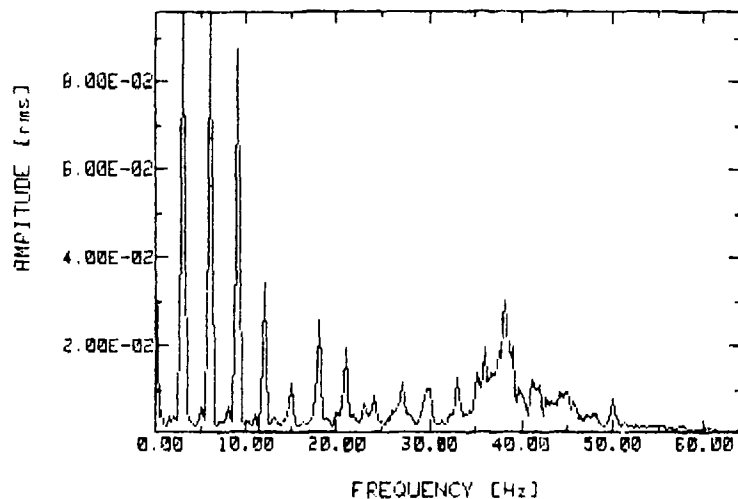
A SPEC 2 DELT\_7221

#RV: 10



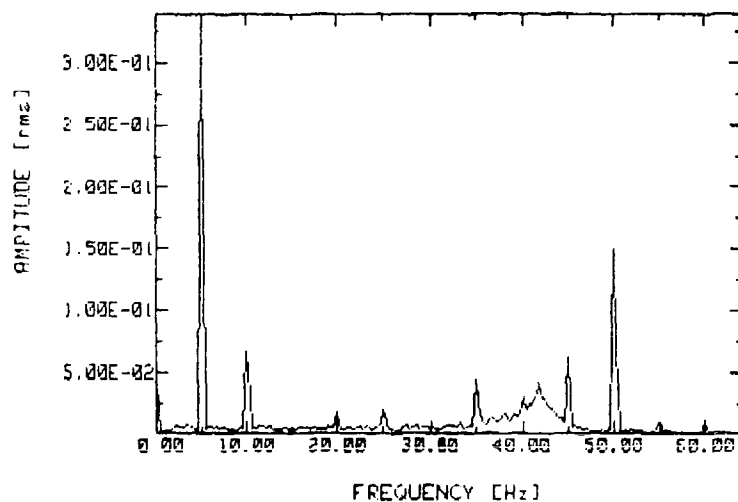
A SPEC 2 DELT\_7222

#AV: 10



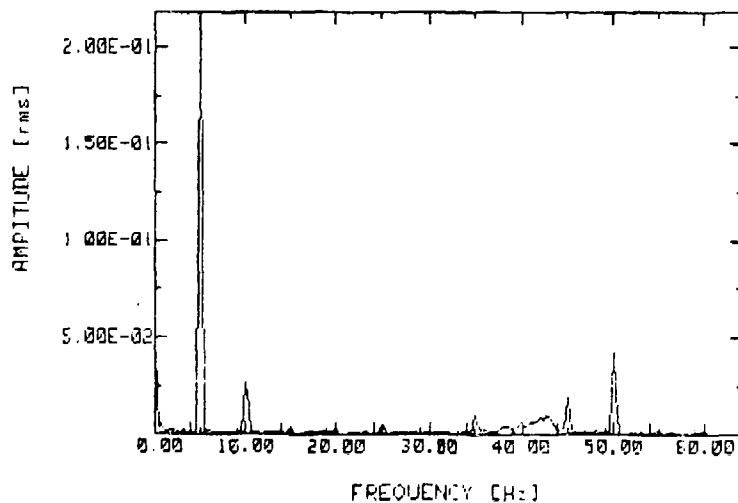
A SPEC 2 DELT\_7226

#AV: 10



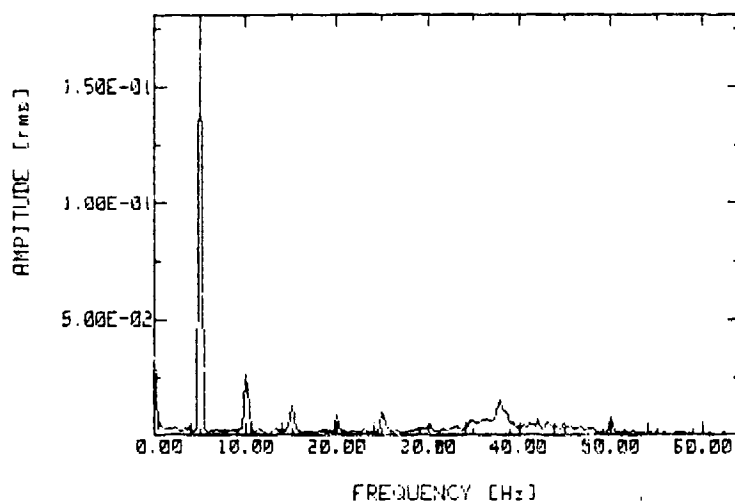
A SPEC 2 DELT\_7227

#AV: 10



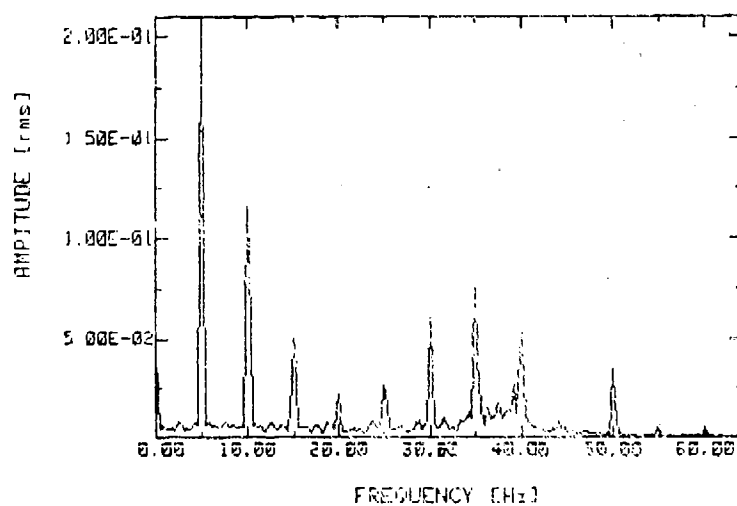
A SPEC 2 DELT\_7228

#AV: 10



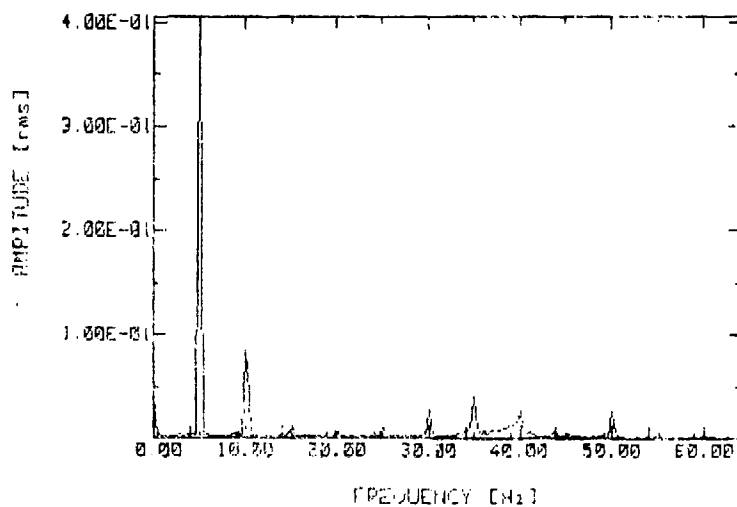
A SPEC 2 DELT\_7229

#AV: 10



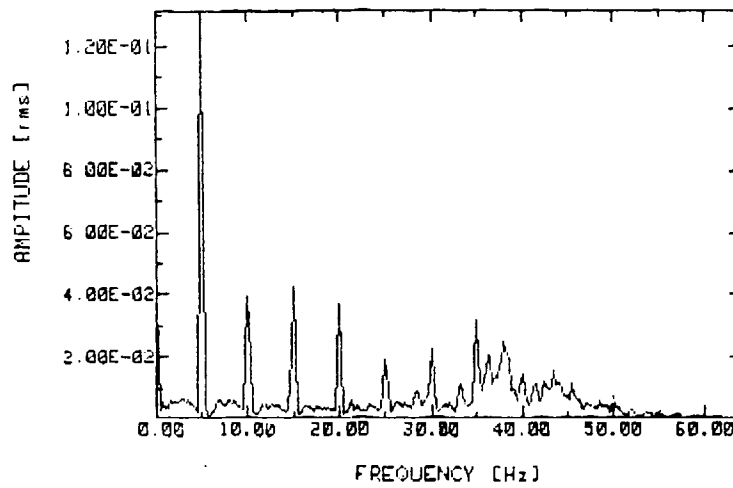
A SPEC 2 DELT\_7230

#AV: 10



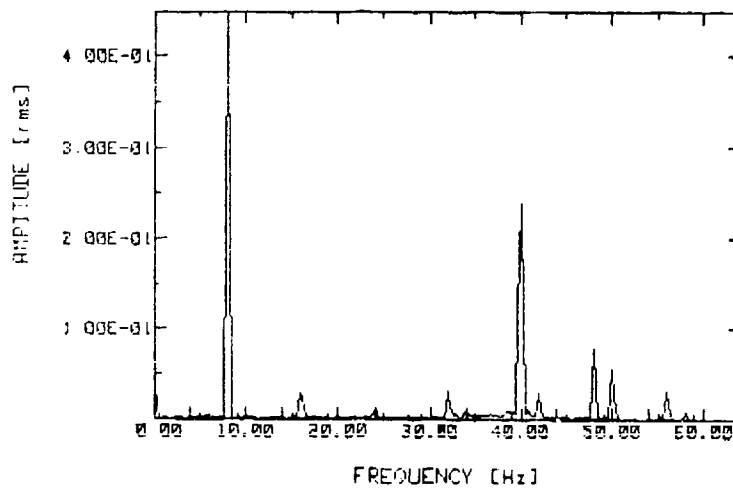
A SPEC 2 DELT\_7231

#RV: 10



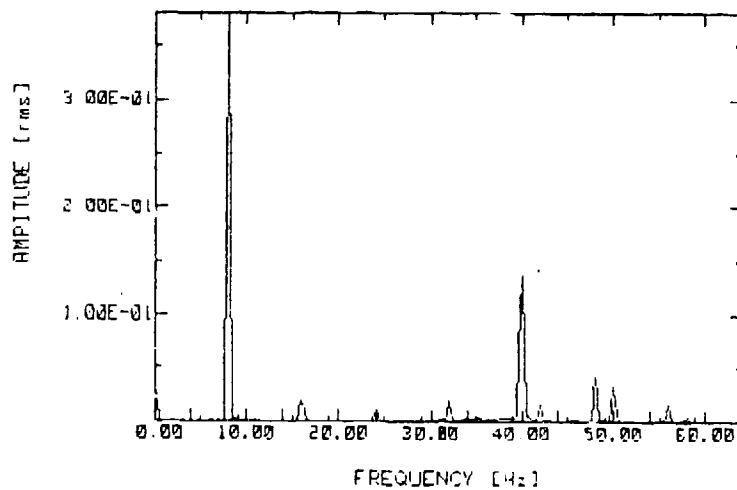
A SPEC 2 DELT\_7238

#RV: 10



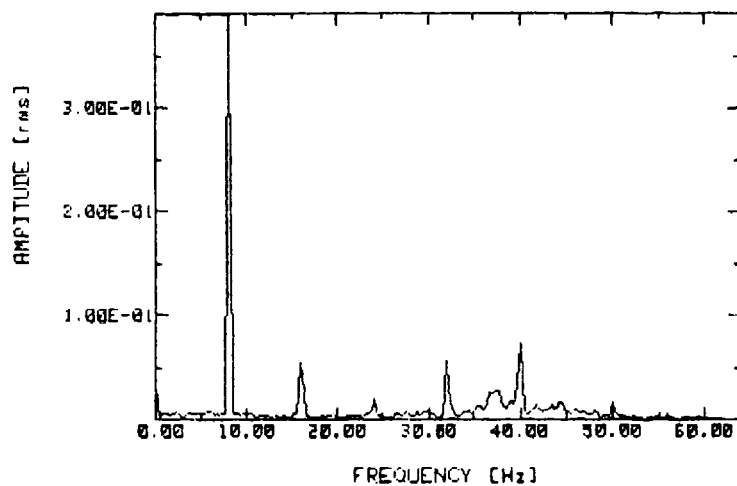
A SPEC 2 DELT\_7239

#RV: 10



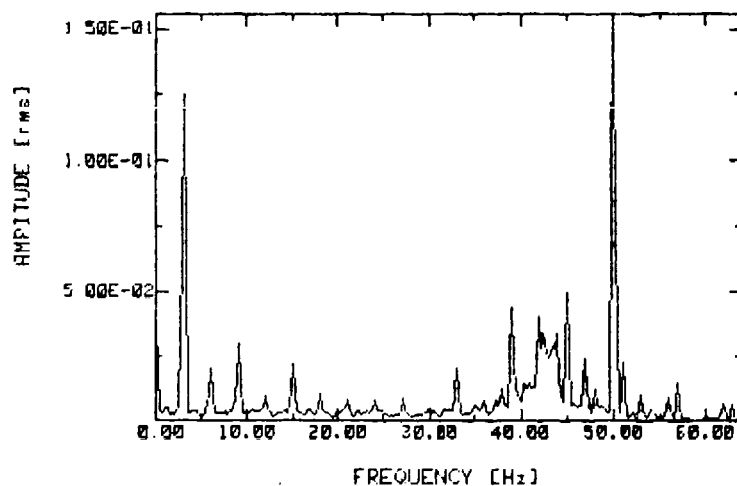
R SPEC 2 DELT\_7240

#AV: 10



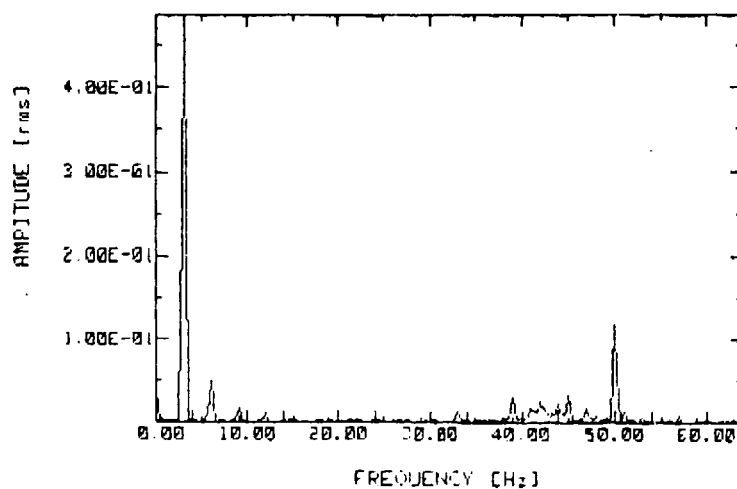
R SPEC 2 DELT\_7242

#AV: 10



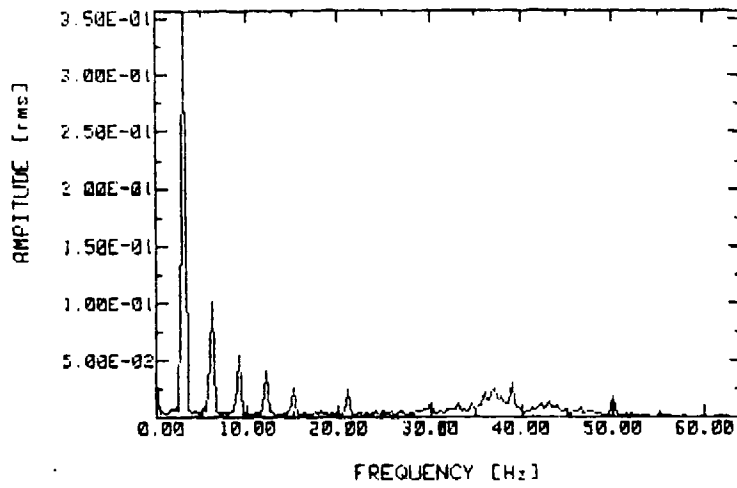
R SPEC 2 DELT\_7248

#AV: 10



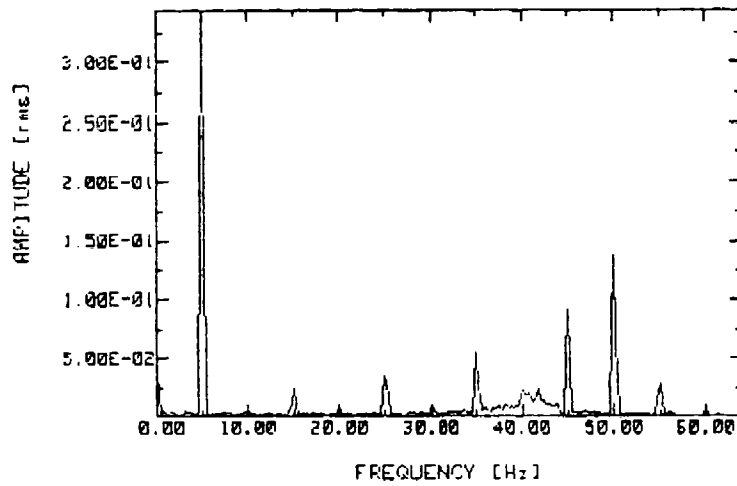
A SPEC 2 DELT\_7249

#AV: 10



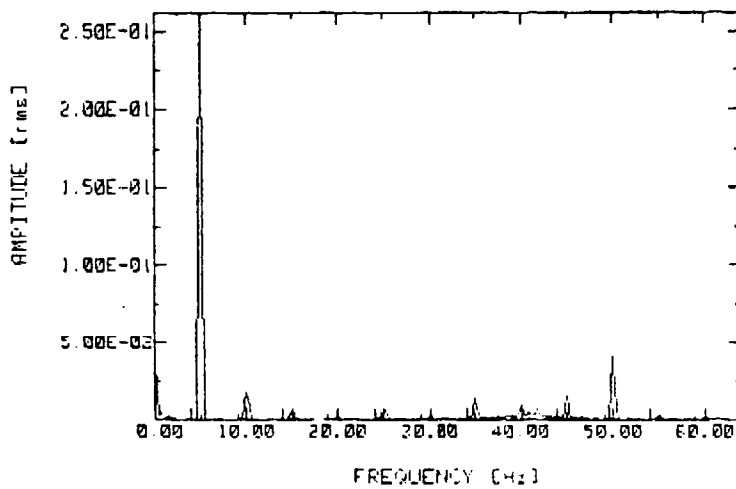
A SPEC 2 DELT\_7256

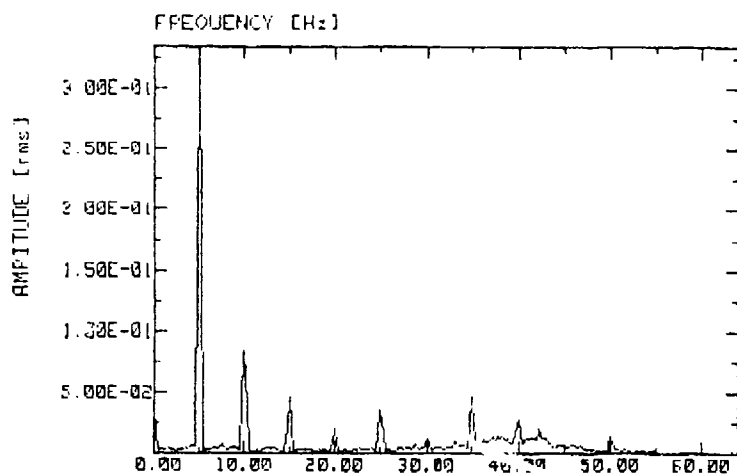
#AV: 10



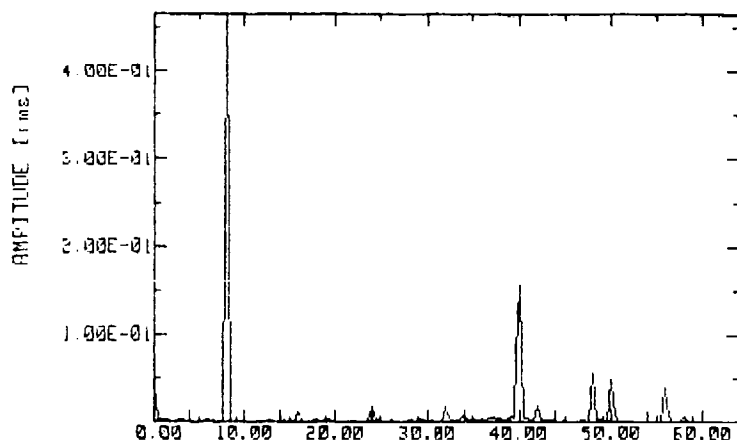
A SPEC 2 DELT\_7257

#AV: 10

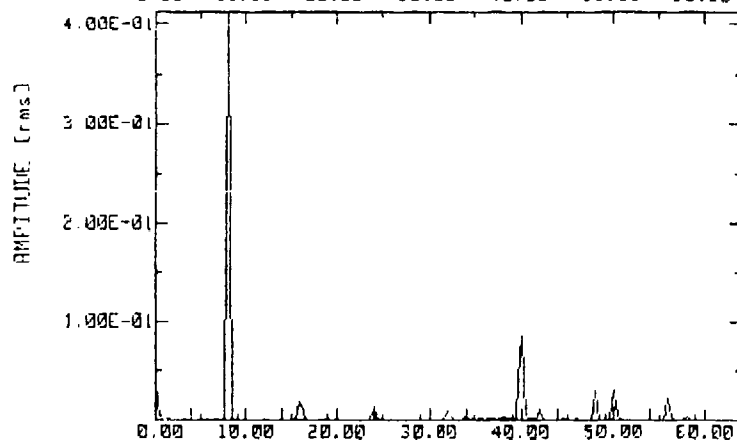




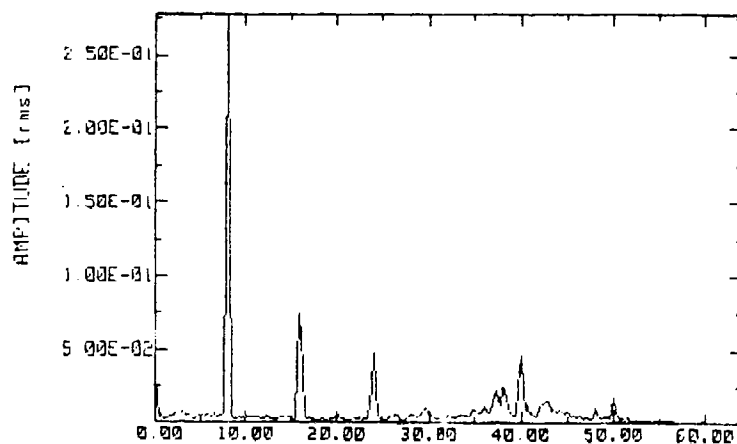
A SPEC 2 DELT\_725B #AV: 10



A SPEC 2 DELT\_726B #AV: 10



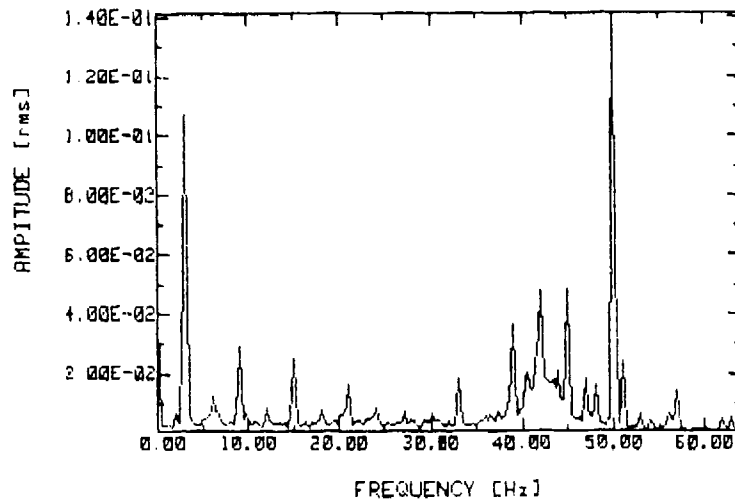
A SPEC 2 DELT\_726B #AV: 10



A SPEC 2 DELT\_727B #AV: 10

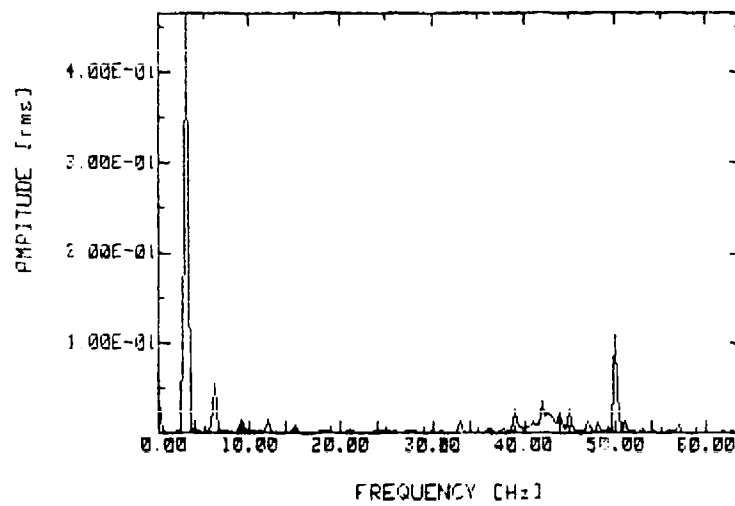
R SPEC 2 DELT\_0102

#AV: 10



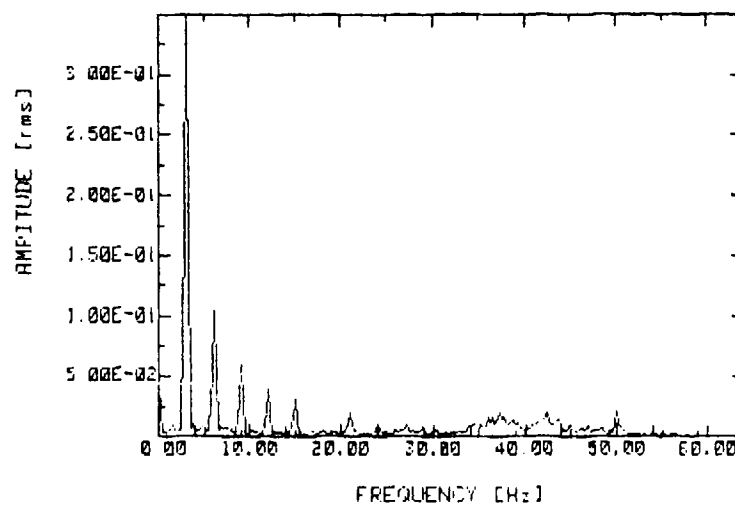
R SPEC 2 DELT\_0103

#AV: 10



R SPEC 2 DELT\_0104

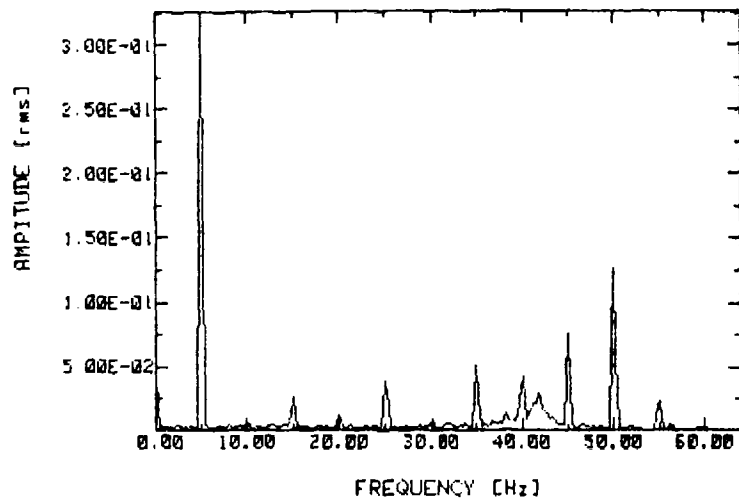
#AV: 10





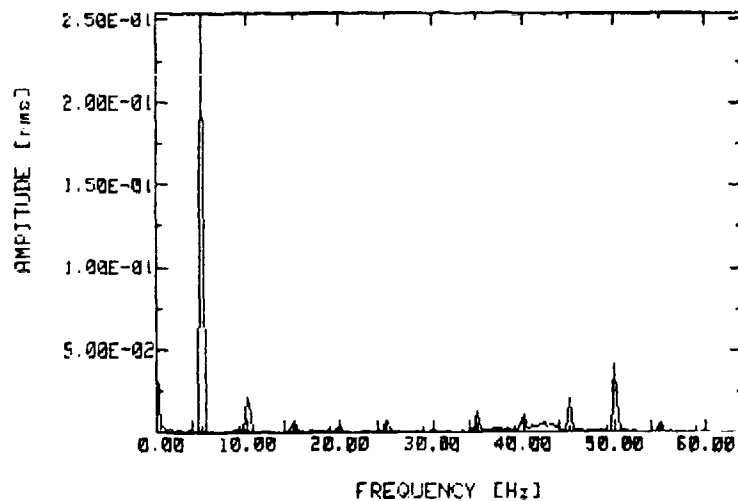
A SPEC 2 DELT\_0111

#RV: 10



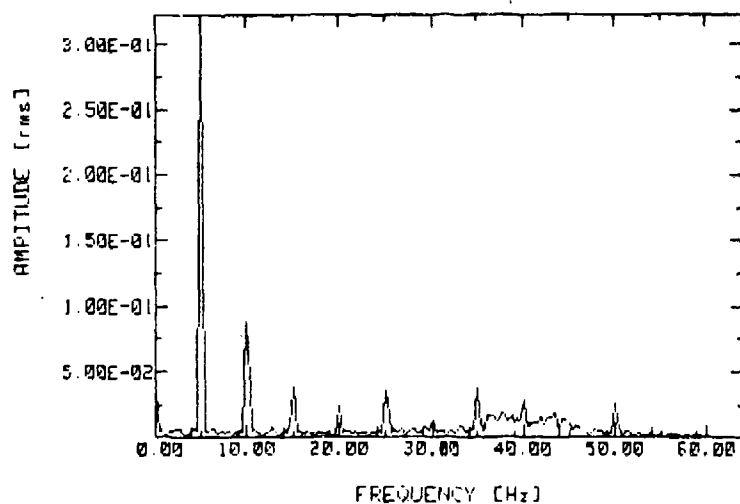
A SPEC 2 DELT\_0112

#RV: 10



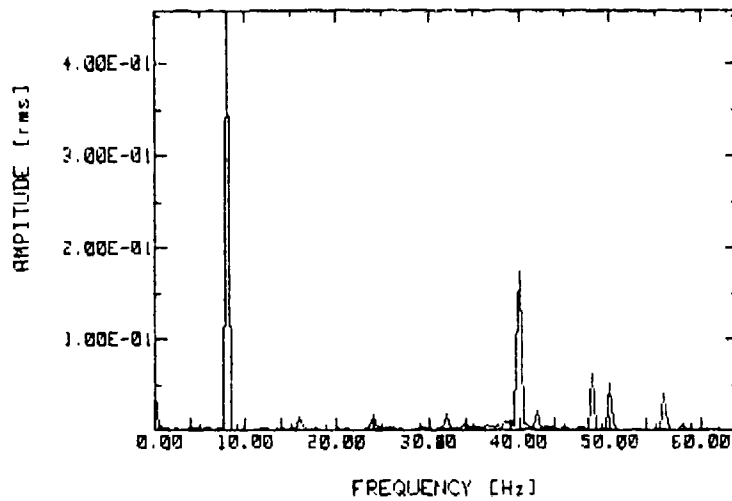
A SPEC 2 DELT\_0113

#RV: 10



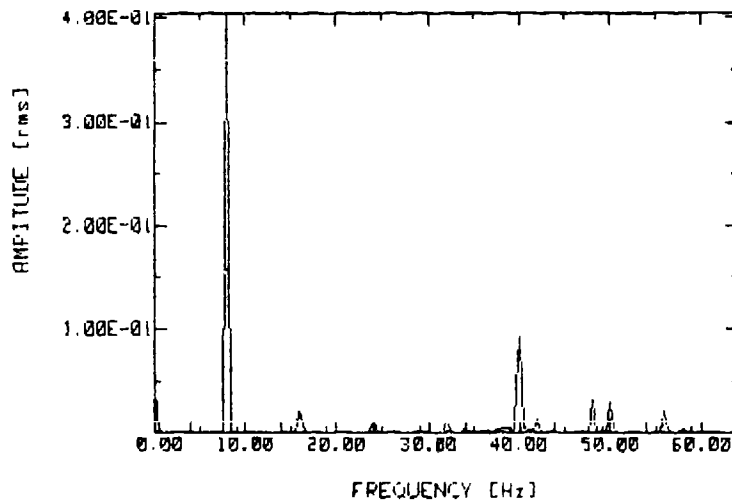
R SPEC 2 DELT\_0123

#RV: 10



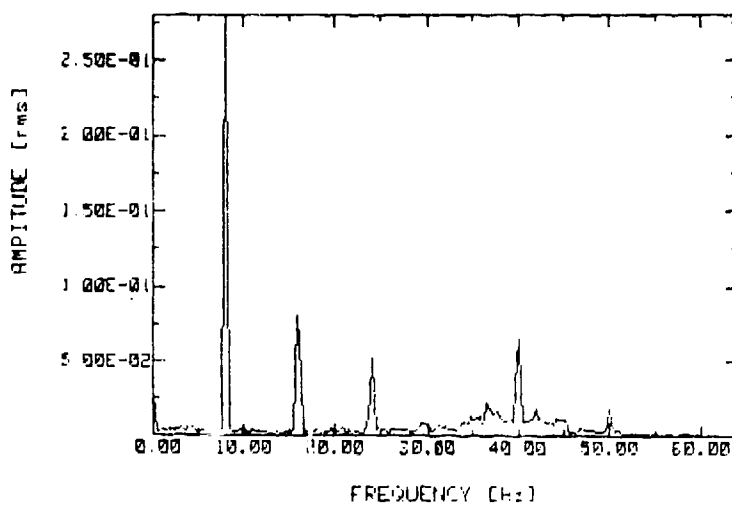
R SPEC 2 DELT\_0124

#RV: 10



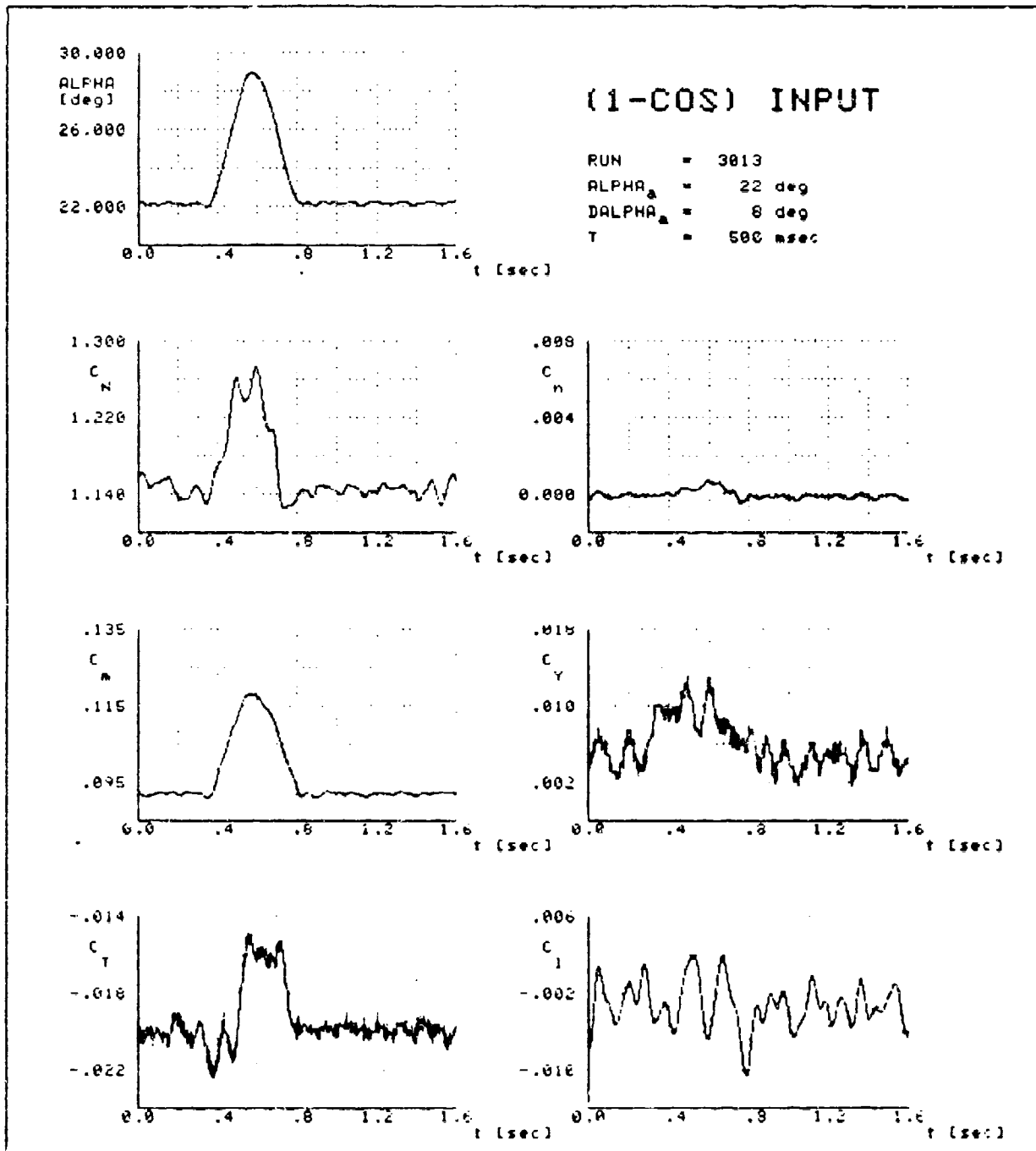
R SPEC 2 DELT\_0125

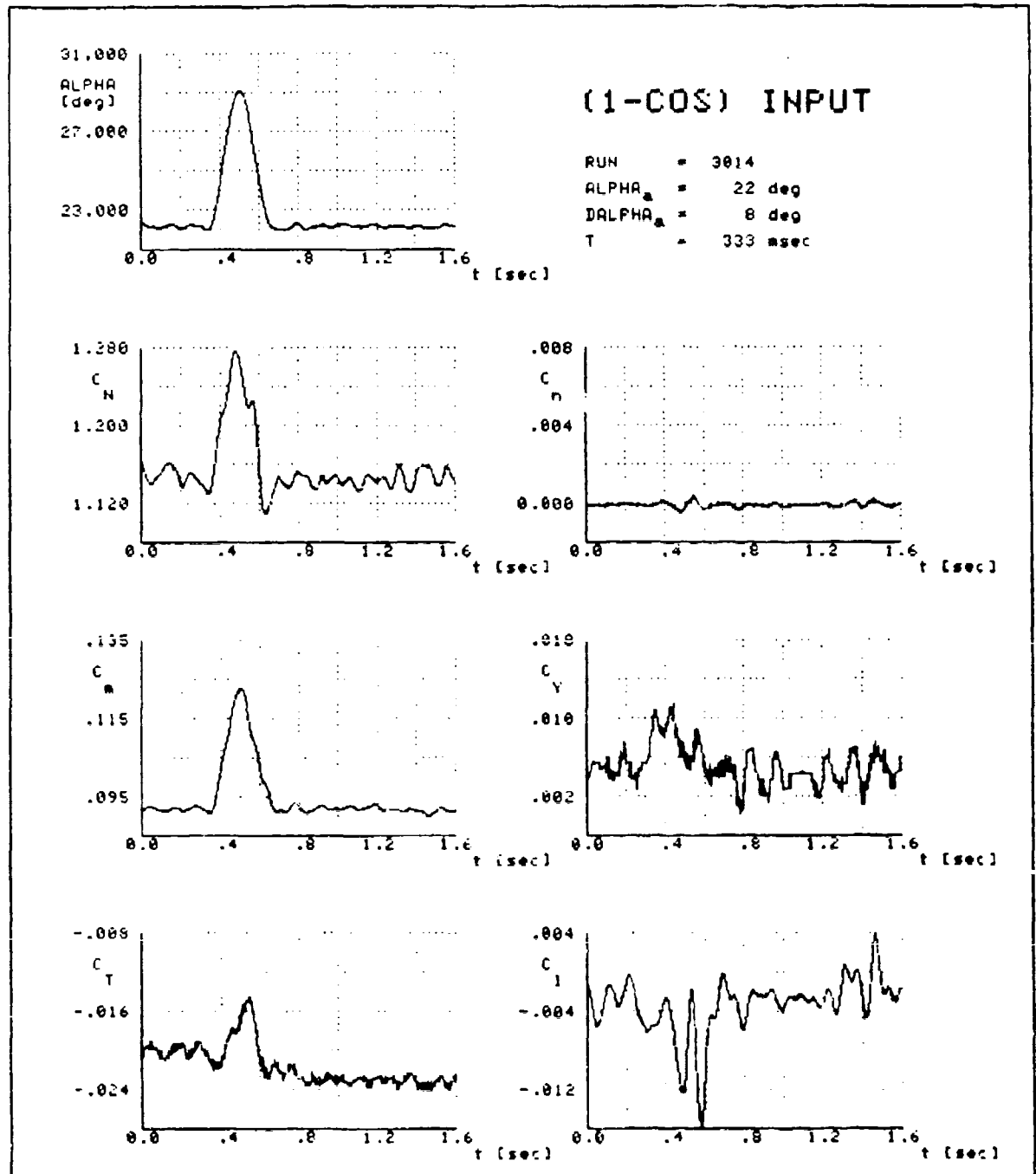
#RV: 10

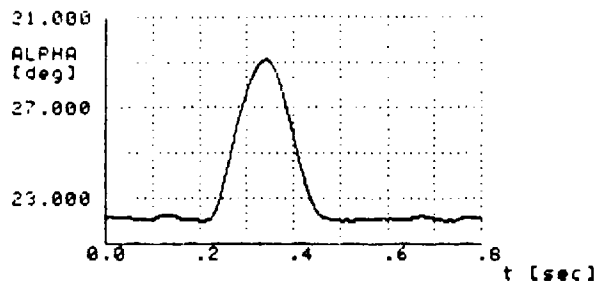


-81A-

APPENDIX B  
PLOTS OF TIME HISTORIES OF OVERALL LOADS FOR  
(1-COS) INPUTS

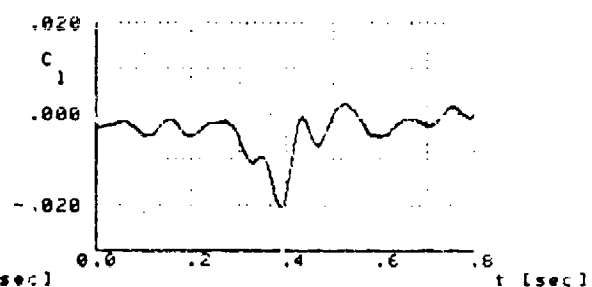
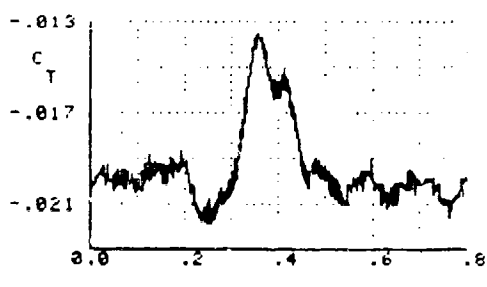
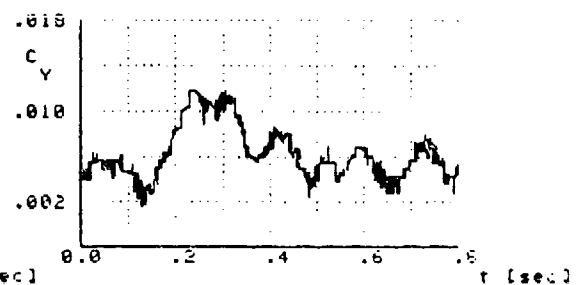
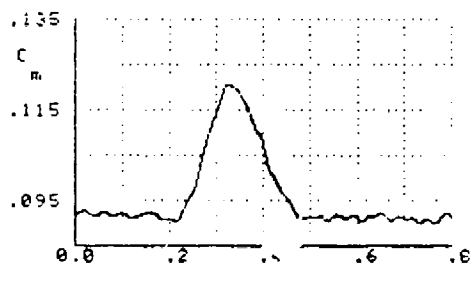
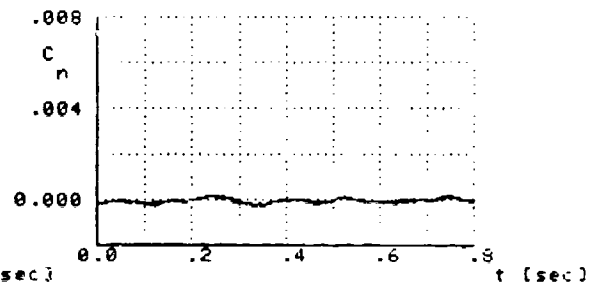
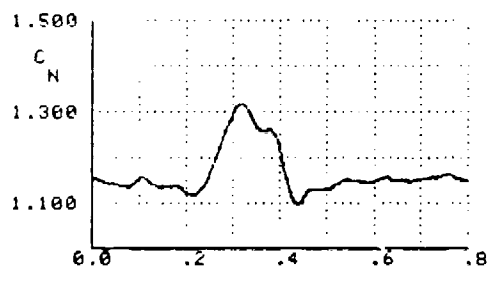


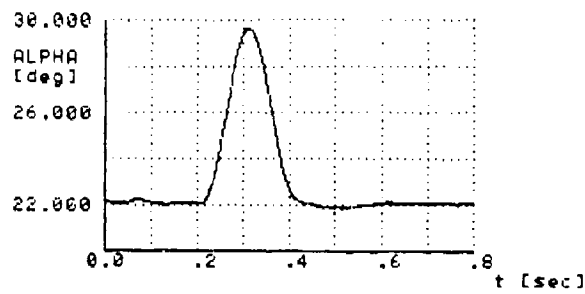




# (1-COS) INPUT

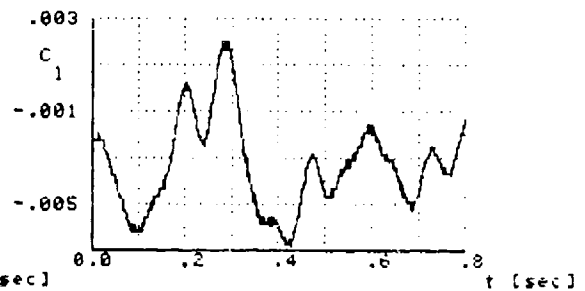
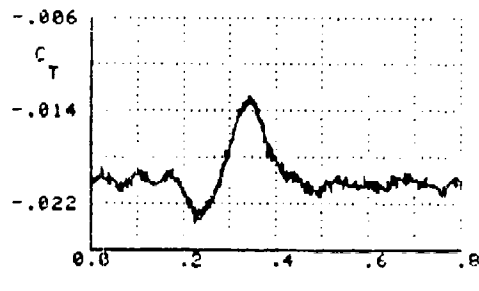
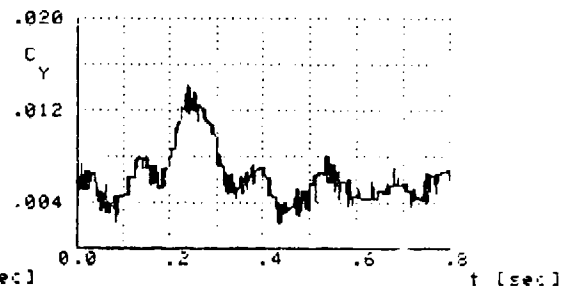
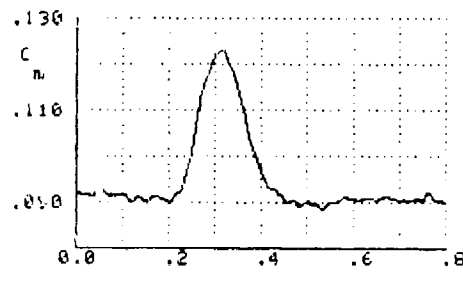
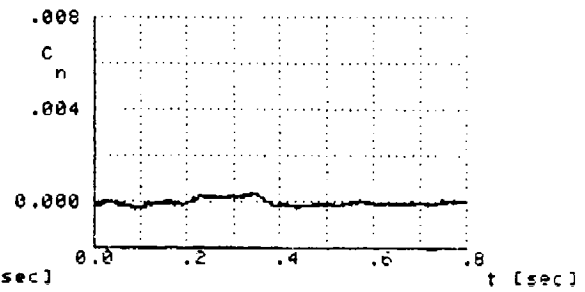
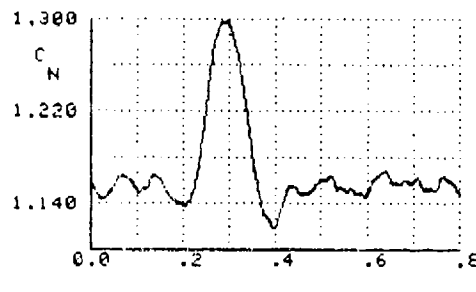
RUN = 3015  
 ALPHA<sub>A</sub> = 22 deg  
 DALPHA<sub>A</sub> = 6 deg  
 T = 250 msec

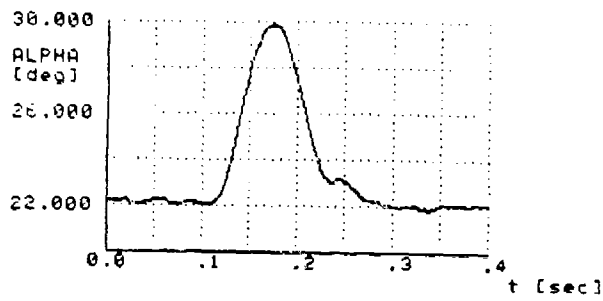




# (1-COS) INPUT

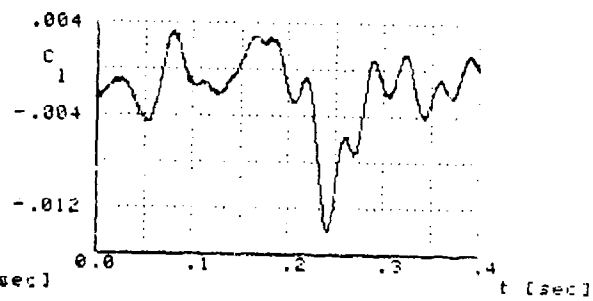
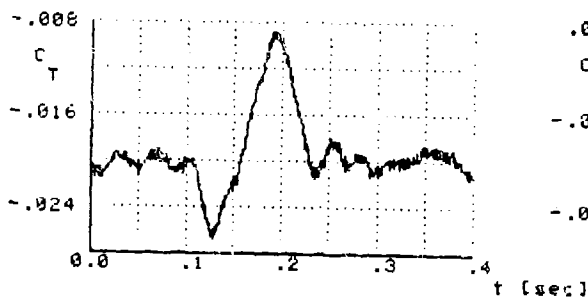
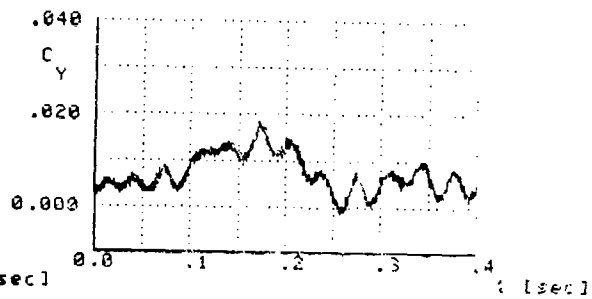
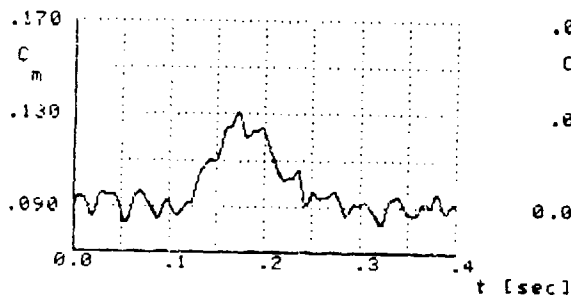
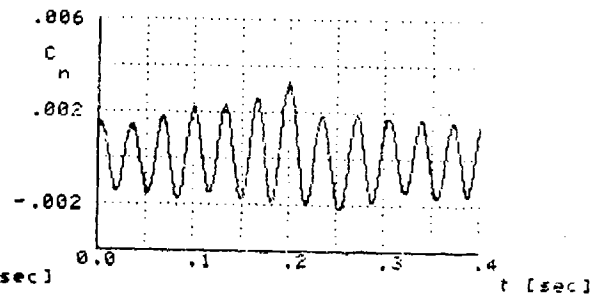
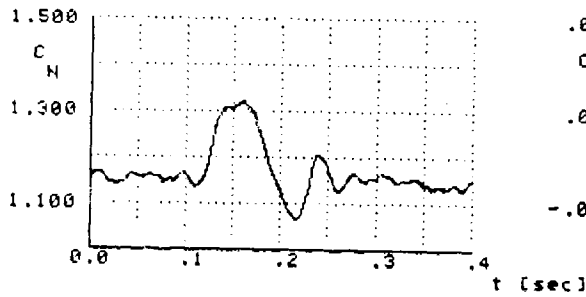
RUN = 3016  
 $\alpha_a$  = 22 deg  
 $\Delta\alpha_a$  = 8 deg  
 $T$  = 200 msec



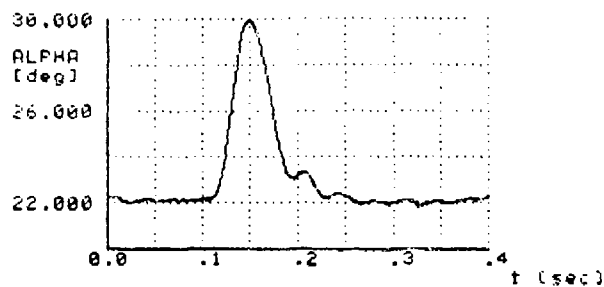


# (1-COS) INPUT

RUN = 3017  
 ALPHA<sub>a</sub> = 22 deg  
 DRALPHA<sub>a</sub> = 8 deg  
 T = 125 msec

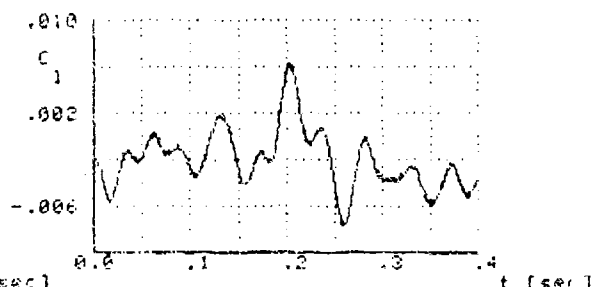
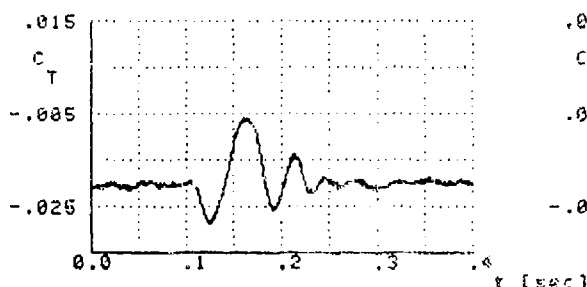
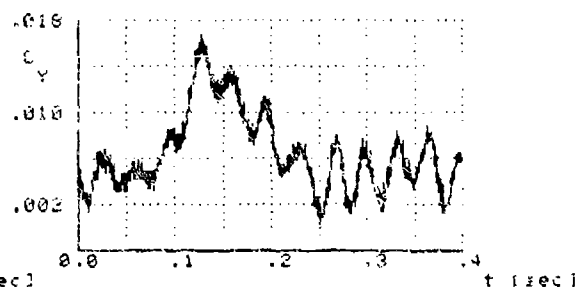
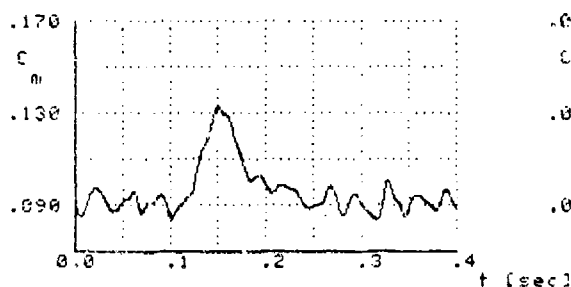
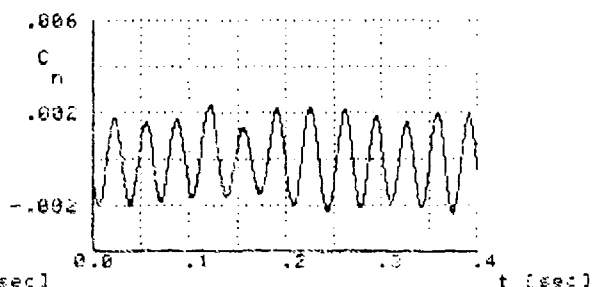
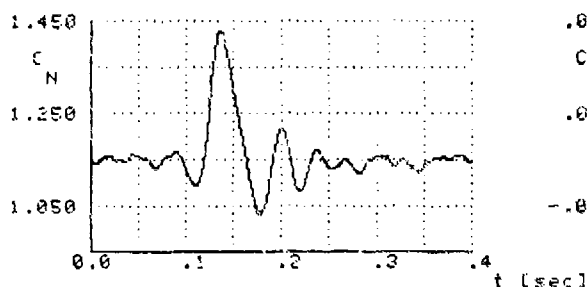


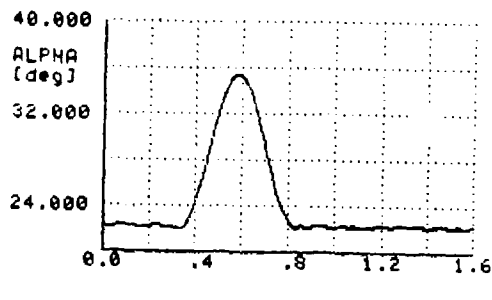




# (1-COS) INPUT

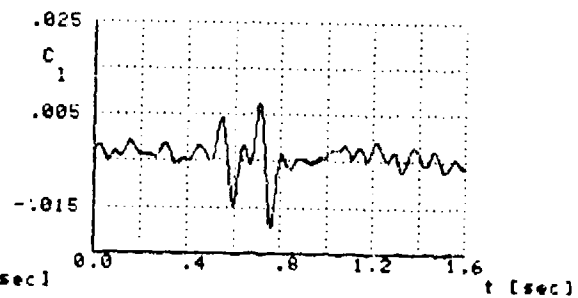
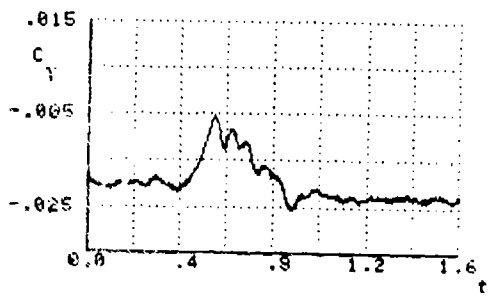
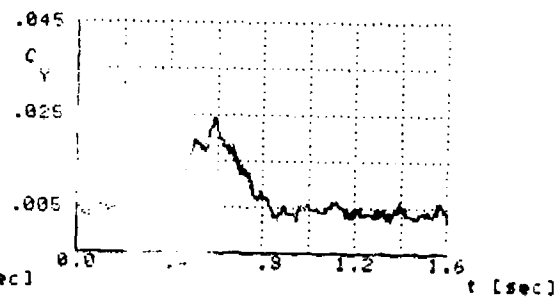
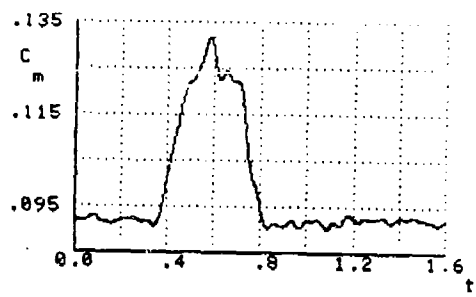
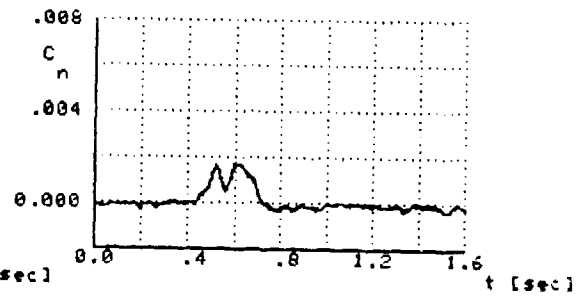
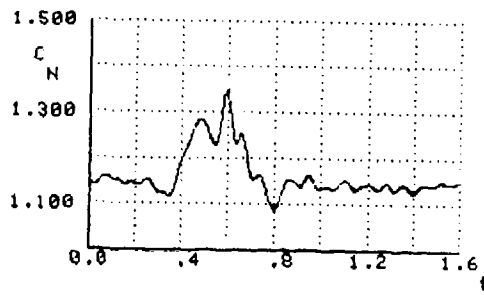
RUN = 3018  
 ALPHA<sub>a</sub> = 22 deg  
 ΔALPHA<sub>a</sub> = 8 deg  
 T = 83 msec

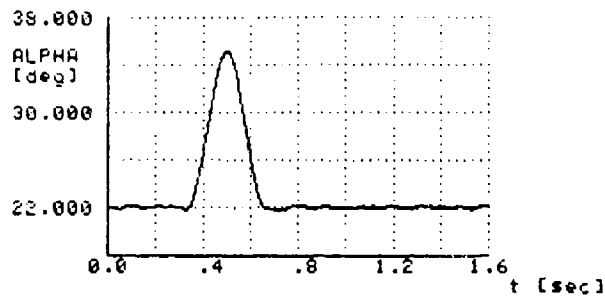




# (1-COS) INPUT

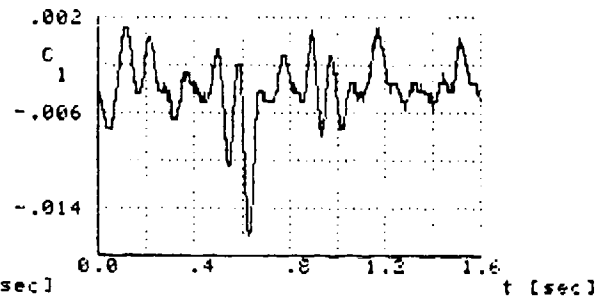
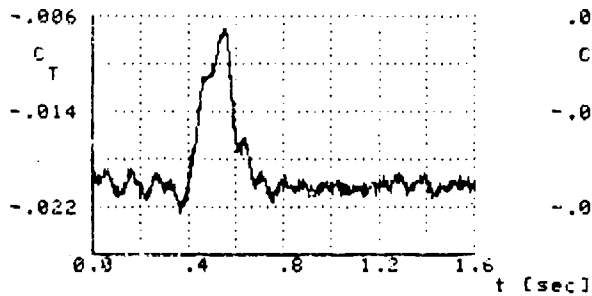
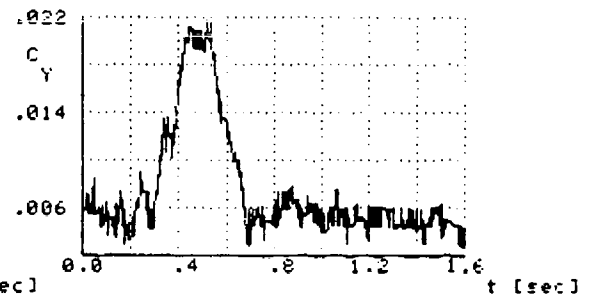
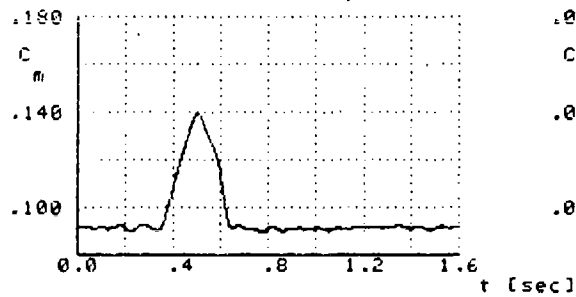
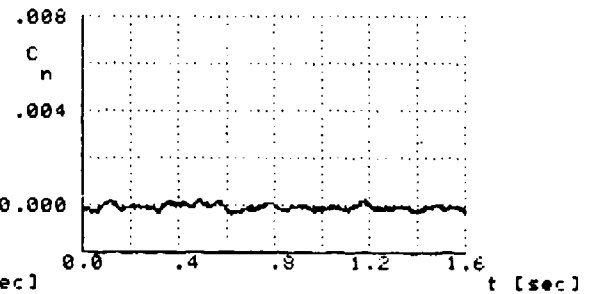
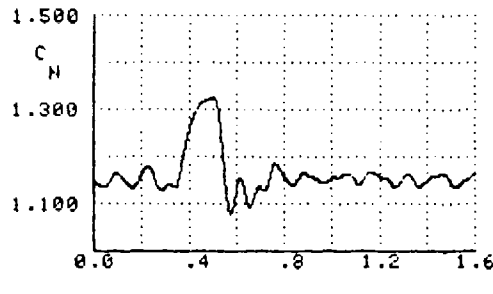
RUN = 3019  
 $\text{ALPHA}_0$  = 22 deg  
 $\text{DALPHA}_0$  = 16 deg  
 $T$  = 500 msel

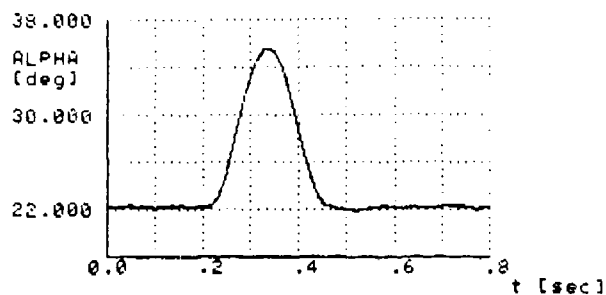




# (1-COS) INPUT

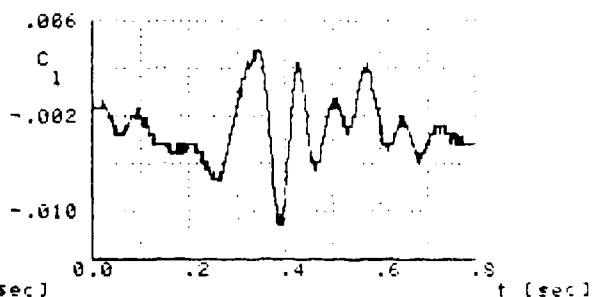
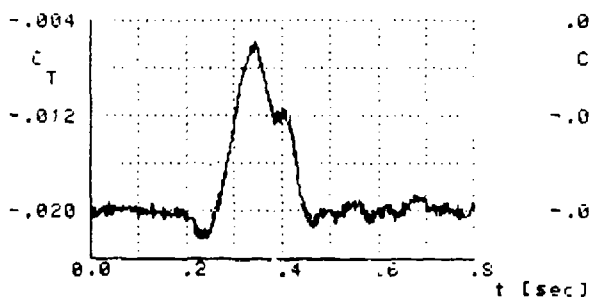
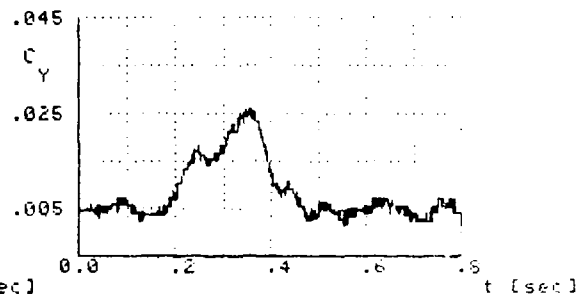
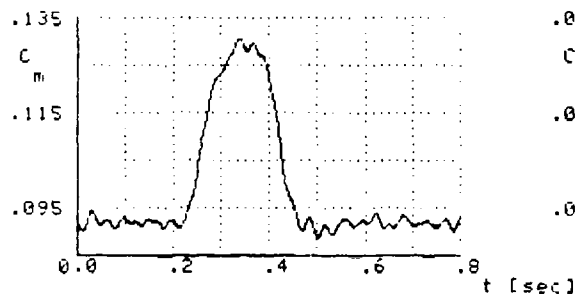
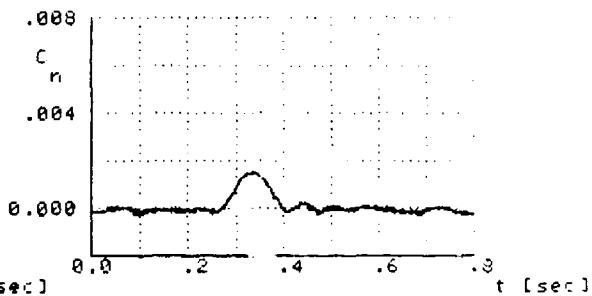
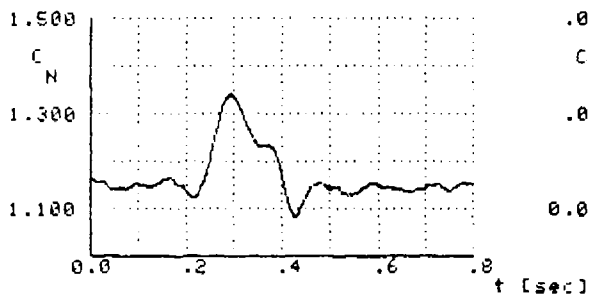
RUN = 3020  
 ALPHA<sub>A</sub> = 22 deg  
 DALPHA<sub>A</sub> = 16 deg  
 T = 333 msec

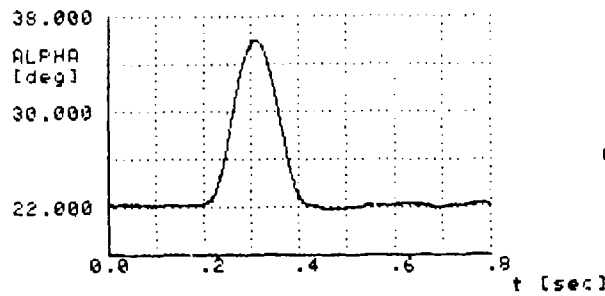




# (1-COS) INPUT

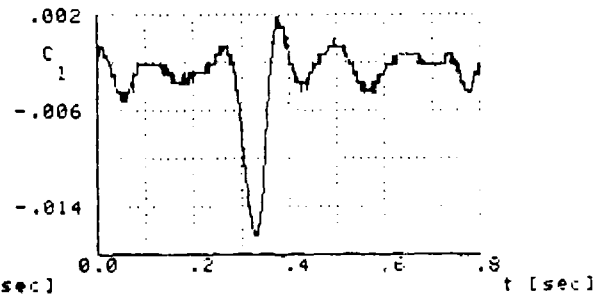
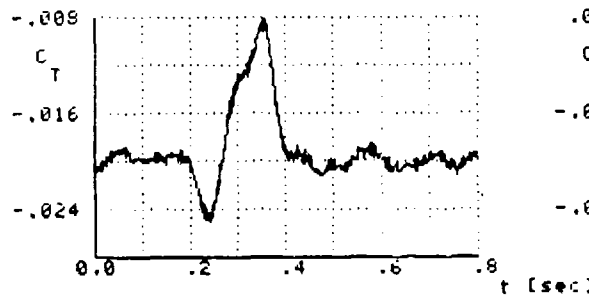
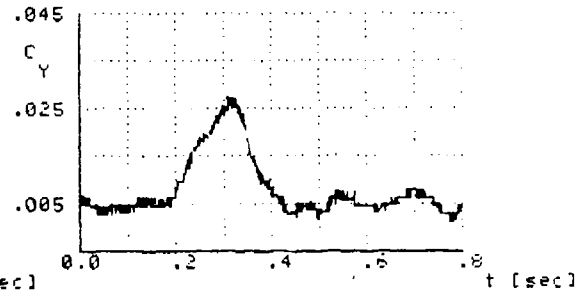
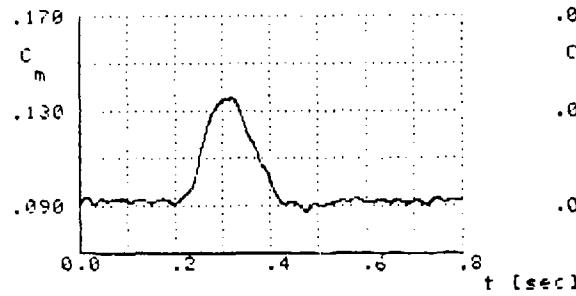
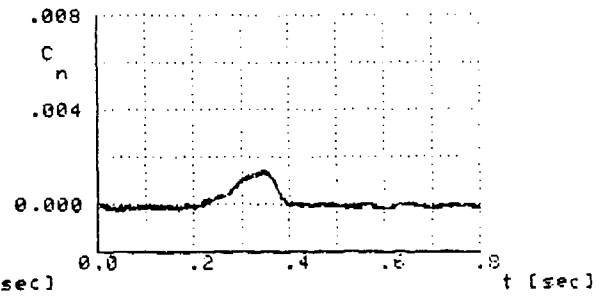
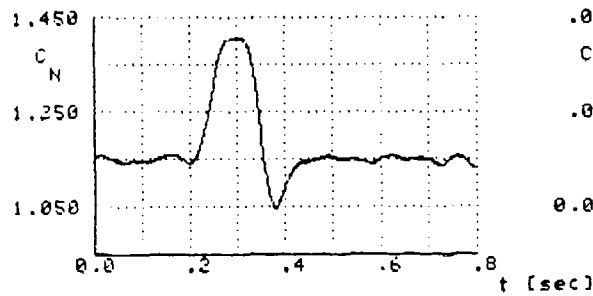
RUN = 3021  
 ALPHA<sub>a</sub> = 22 deg  
 DALPHA<sub>a</sub> = 16 deg  
 T = 250 msec

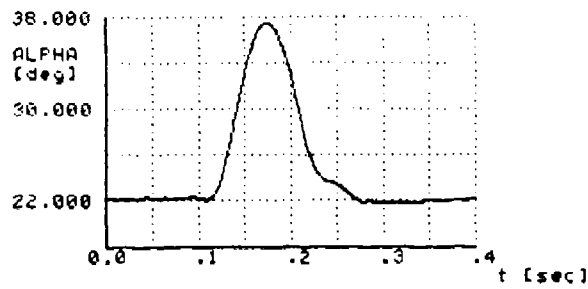




# (1-COS) INPUT

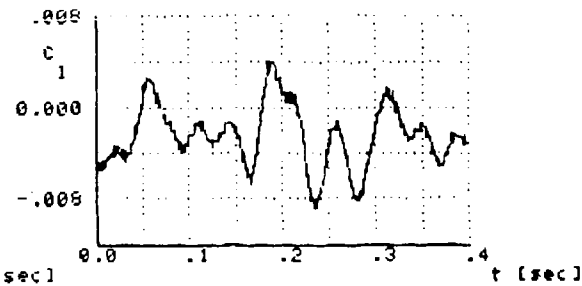
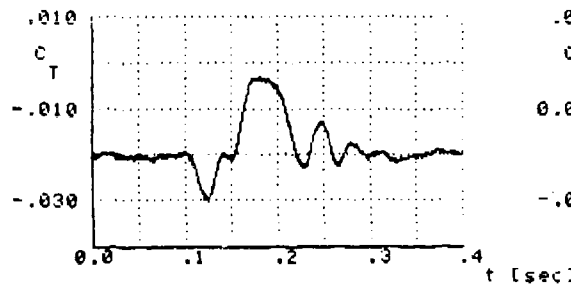
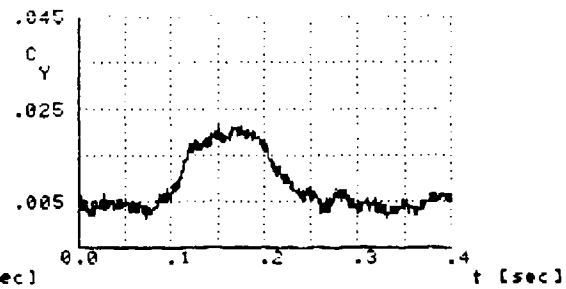
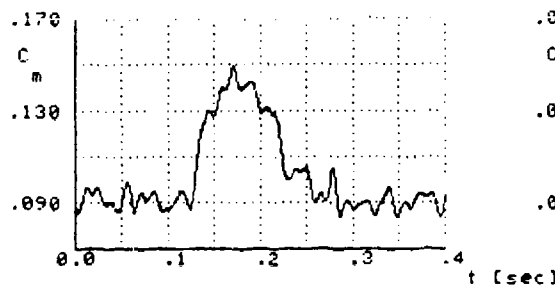
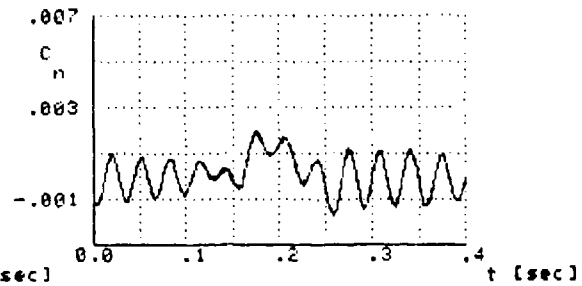
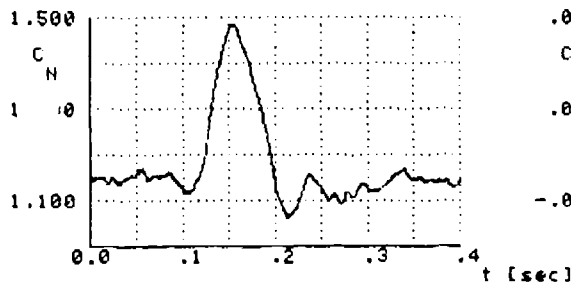
RUN = 3022  
ALPHA<sub>a</sub> = 22 deg  
DRLPHA<sub>a</sub> = 16 deg  
T = 200 msec

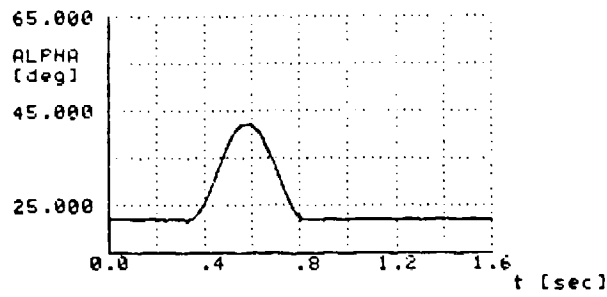




# (1-COS) INPUT

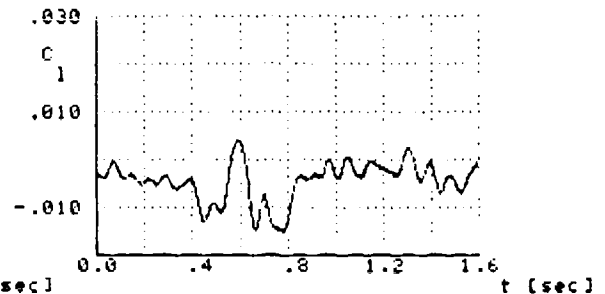
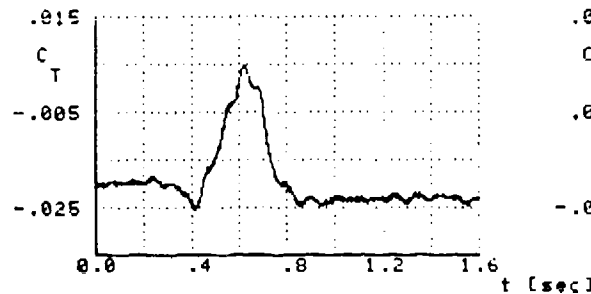
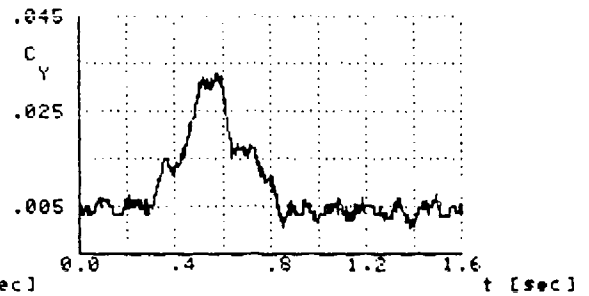
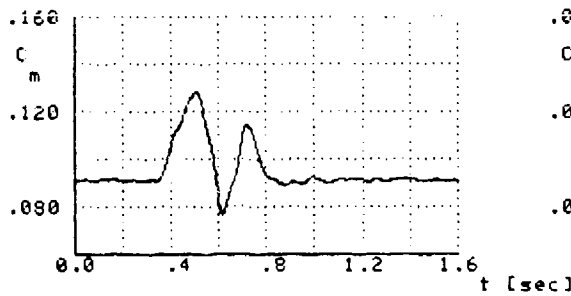
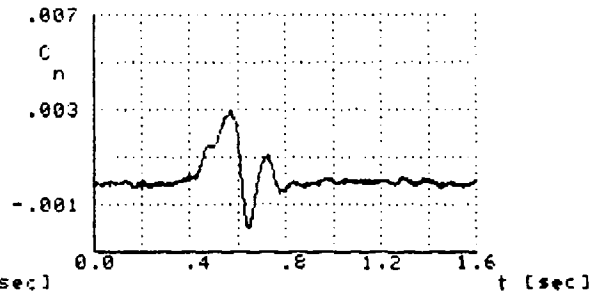
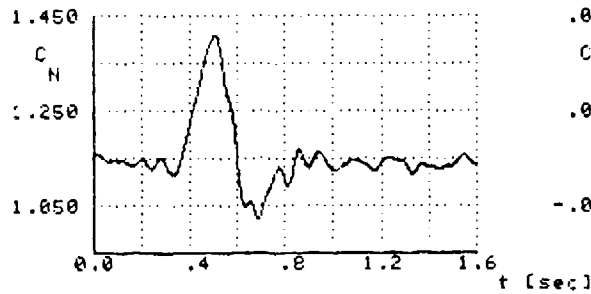
RUN = 3023  
 ALPHA<sub>a</sub> = 22 deg  
 DRALPHA<sub>a</sub> = 16 deg  
 T = 125 msec

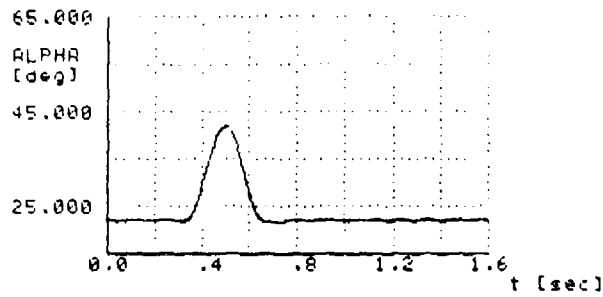




# (1-COS) INPUT

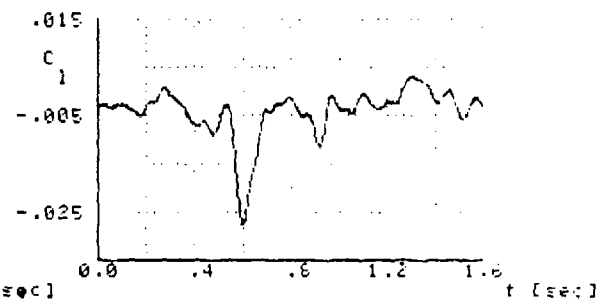
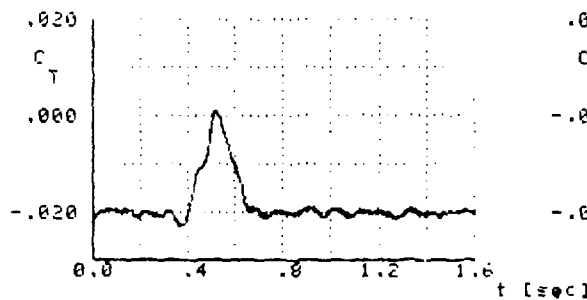
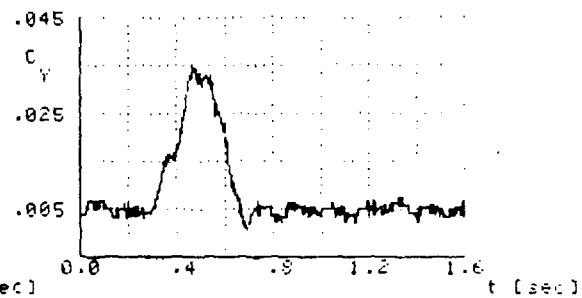
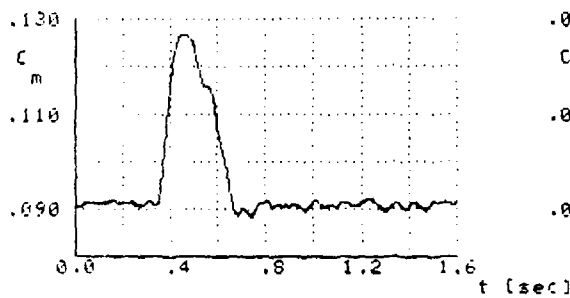
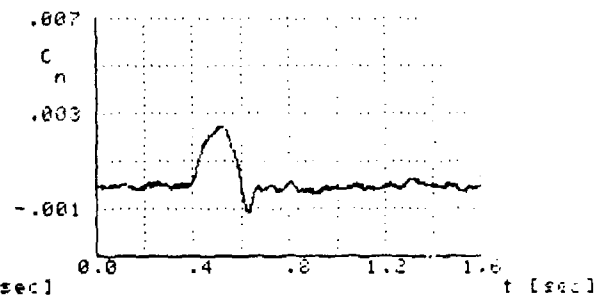
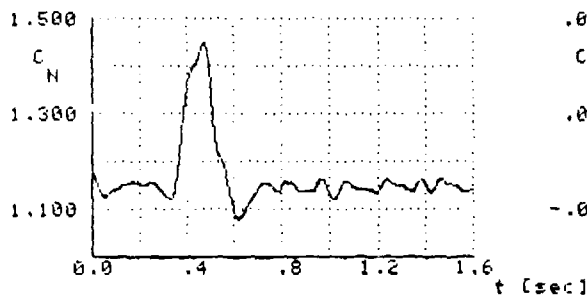
RUN = 3024  
 ALPHA<sub>a</sub> = 22 deg  
 DALPHA<sub>a</sub> = 24 deg  
 T = 500 msec



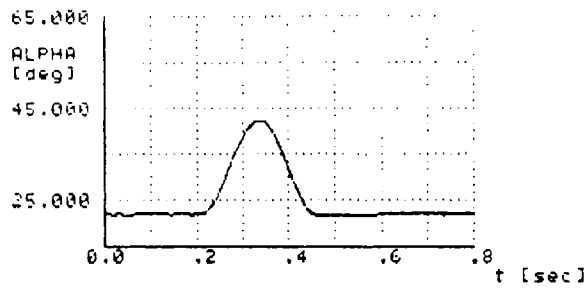


# (1-COS) INPUT

RUN = 3025  
 ALPHA<sub>a</sub> = 22 deg  
 DIALPHA<sub>a</sub> = 24 deg  
 T = 333 msec

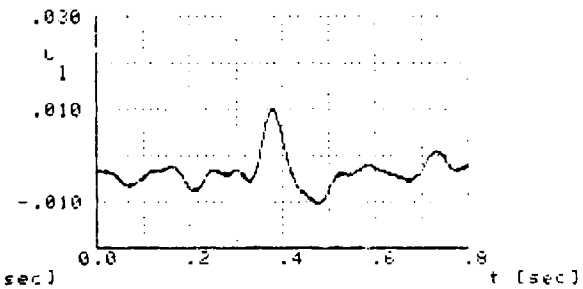
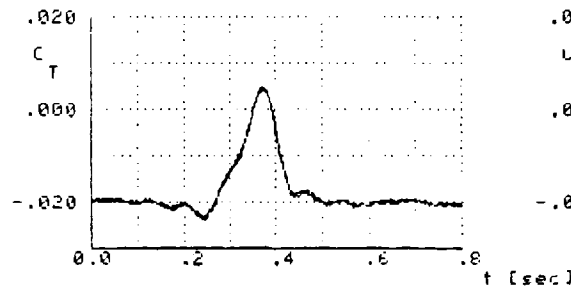
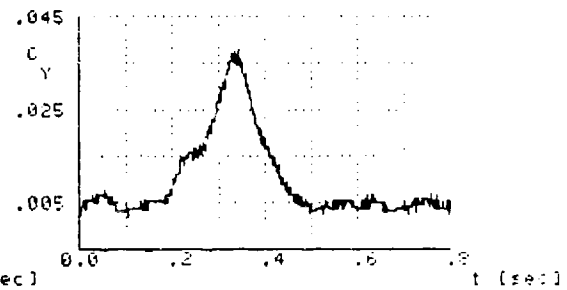
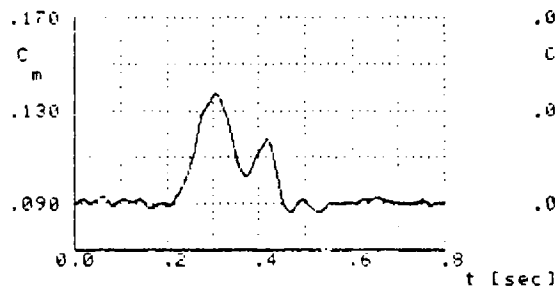
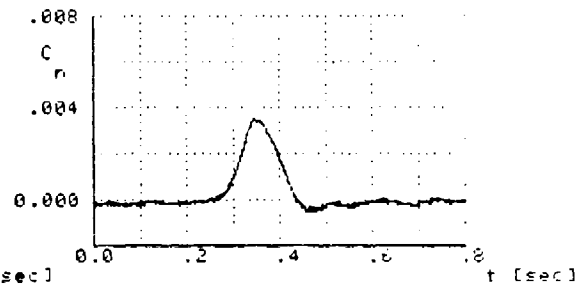
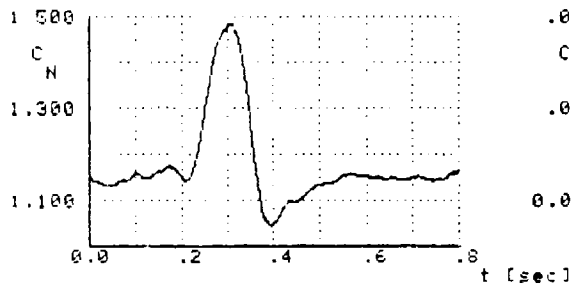


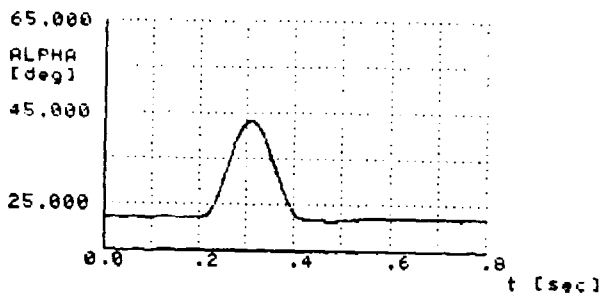




# (1-COS) INPUT

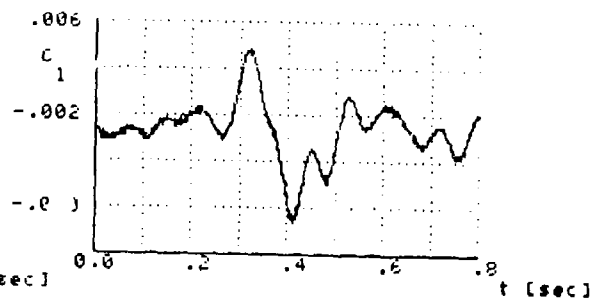
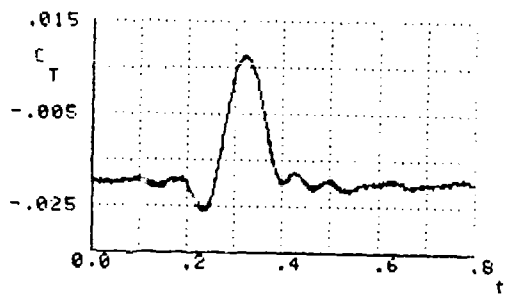
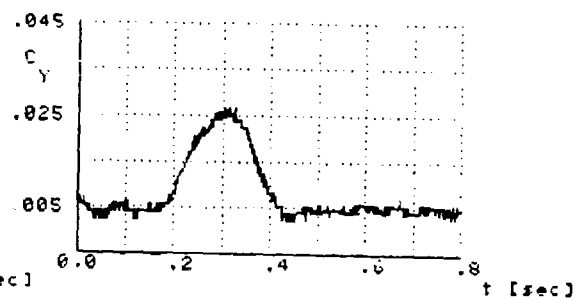
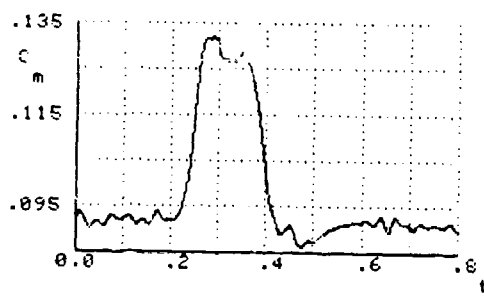
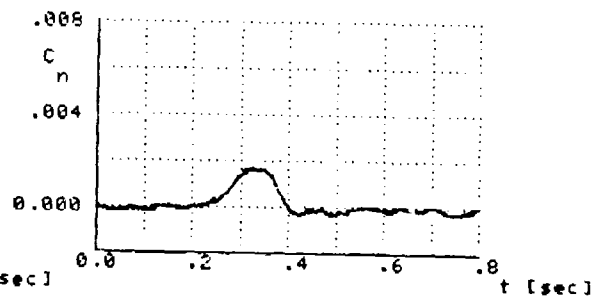
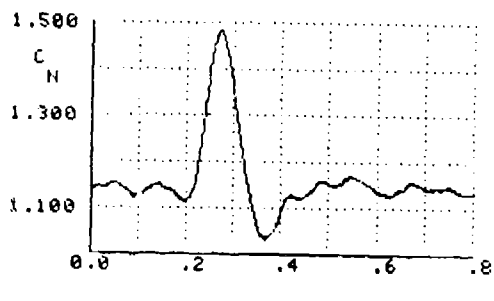
RUN = 3026  
 ALPHA<sub>a</sub> = 22 deg  
 DRALPHA<sub>a</sub> = 24 deg  
 T = 250 msec

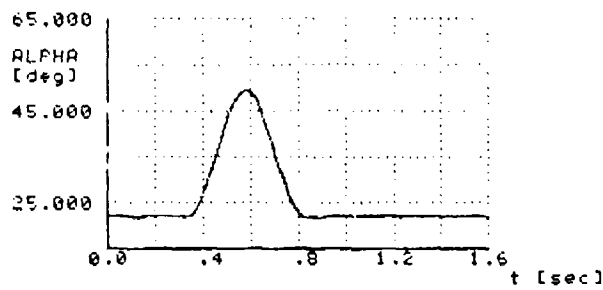




# (1-COS) INPUT

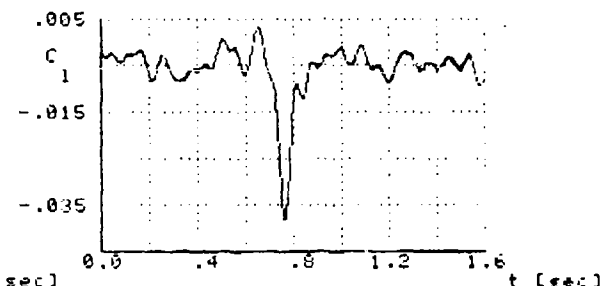
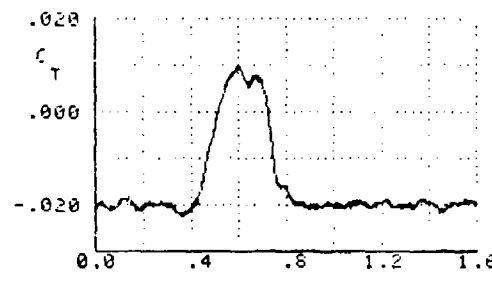
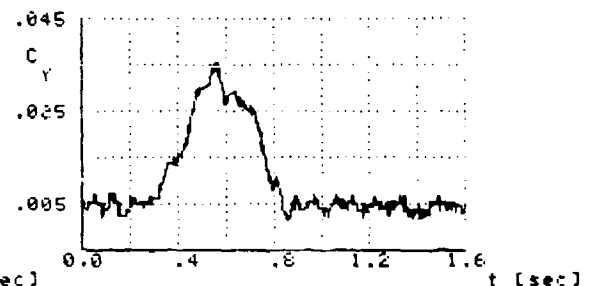
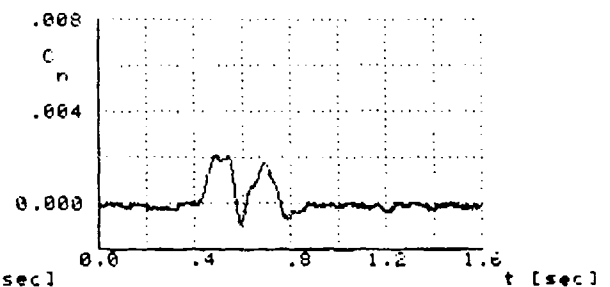
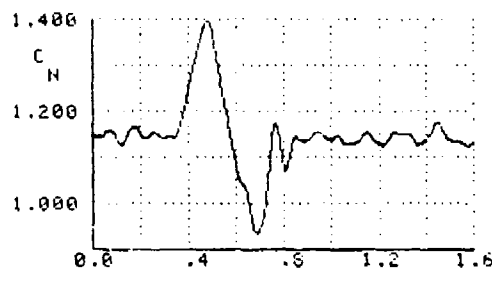
RUN = 3027  
 ALPHA<sub>a</sub> = 22 deg  
 DALPHA<sub>a</sub> = 24 deg  
 T = 200 msec

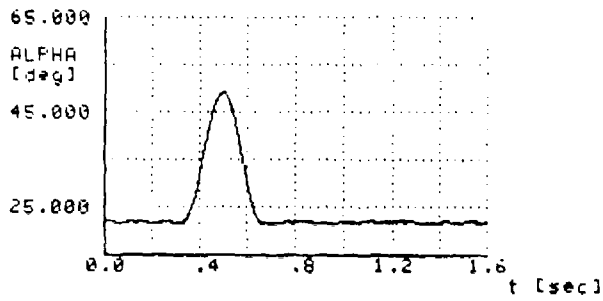




# (1-COS) INPUT

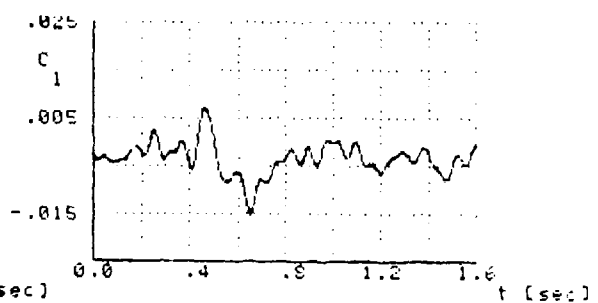
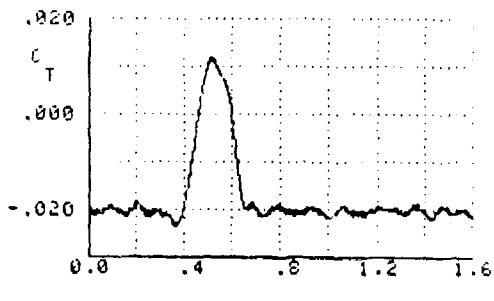
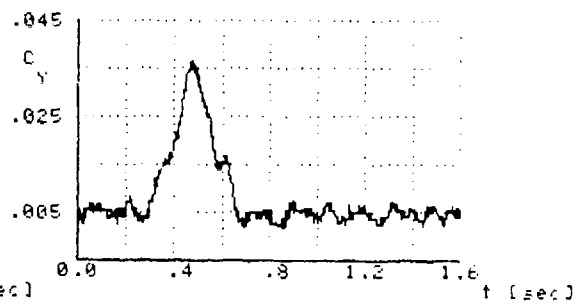
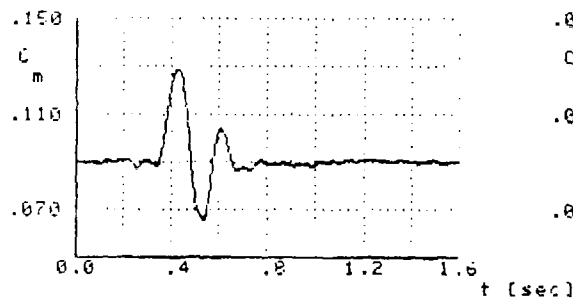
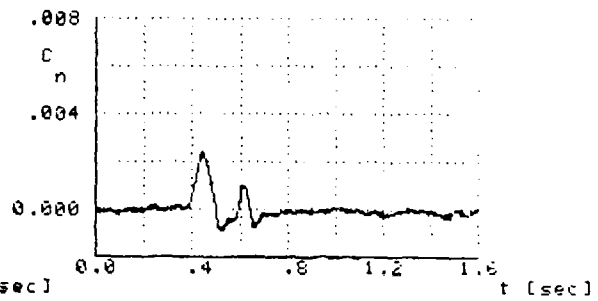
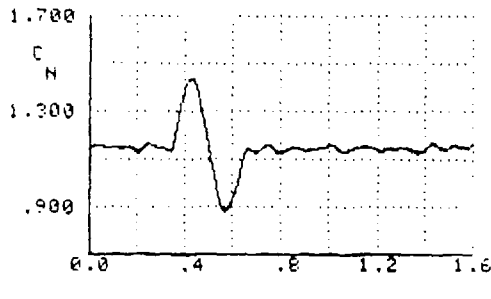
RUN = 3028  
 $\text{ALPHA}_a$  = 22 deg  
 $\text{DALPHA}_a$  = 32 deg  
 $T$  = 500 msec

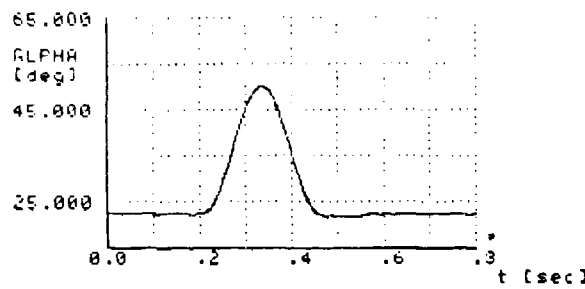




# (1-COS) INPUT

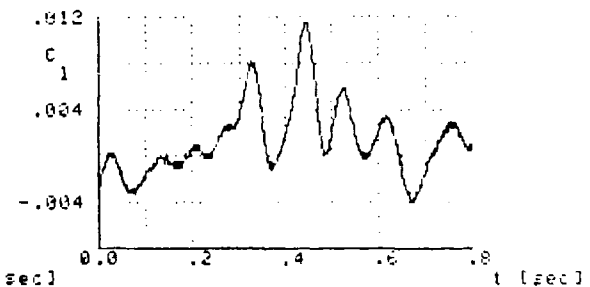
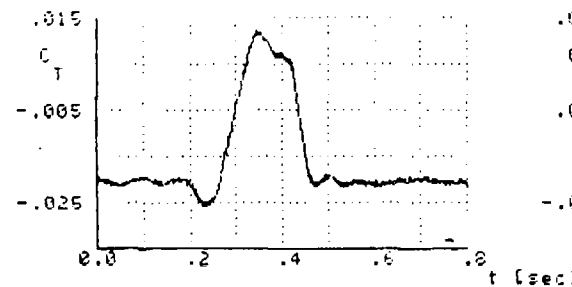
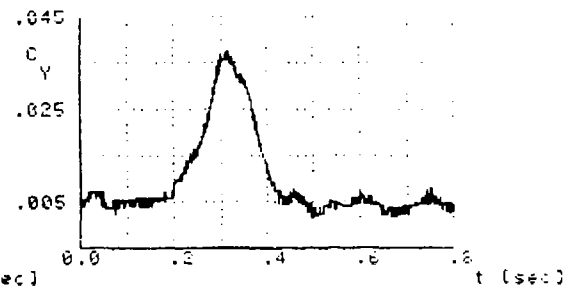
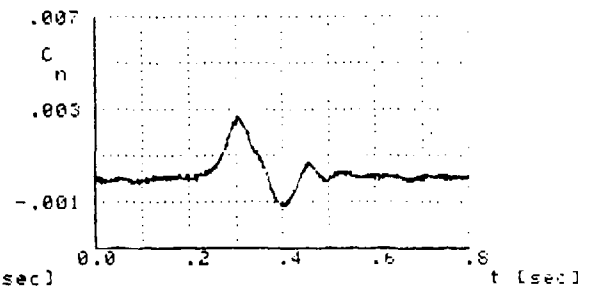
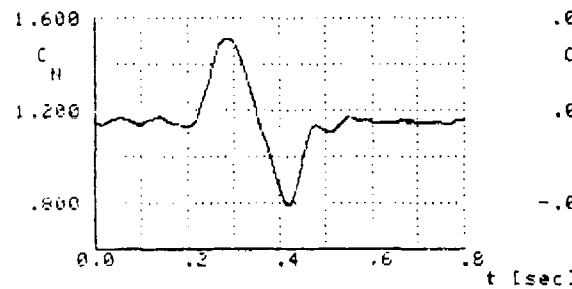
RUN = 3029  
ALPHA<sub>a</sub> = 22 deg  
DALPHA<sub>a</sub> = 32 deg  
T = 333 msec





# (1-COS) INPUT

RUN = 3030  
 ALPHA<sub>d</sub> = 22 deg  
 DALPHA<sub>d</sub> = 32 deg  
 T = 250 msec



65.00

ALPHA  
(deg)

45.000

25.000

t [sec]

# (1-COS) INPUT

RUN = 3031

ALPHA<sub>a</sub> = 22 deg

DALPHA<sub>a</sub> = 32 deg

T = 200 msec

1.700

C<sub>N</sub>

1.300

.900

t [sec]

.008

C<sub>n</sub>

.004

0.000

t [sec]

.170

C<sub>m</sub>

.130

.090

t [sec]

.045

C<sub>y</sub>

.025

.005

t [sec]

.020

C<sub>T</sub>

.000

-.020

t [sec]

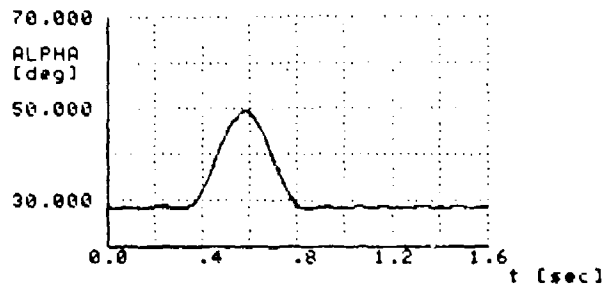
.010

C<sub>l</sub>

.002

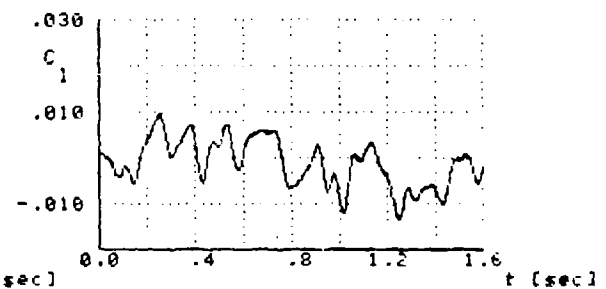
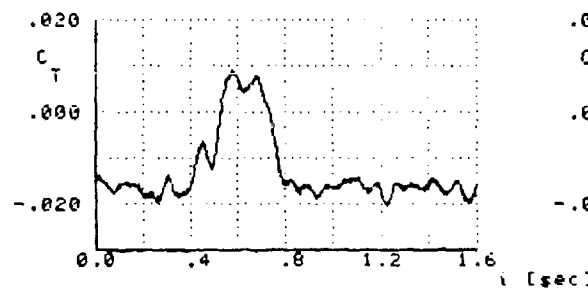
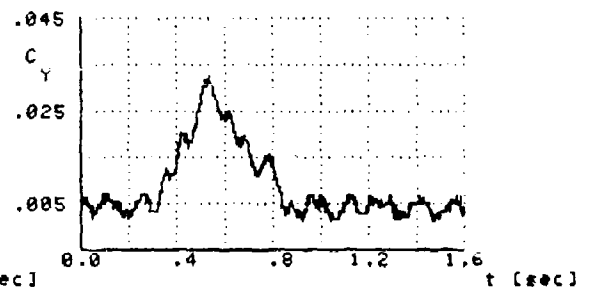
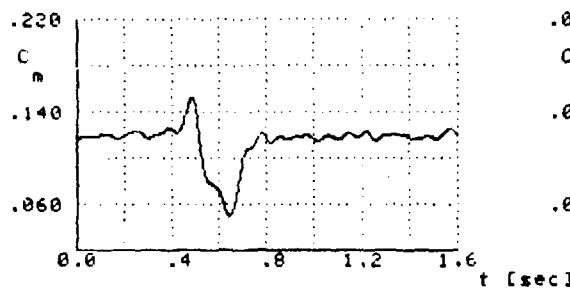
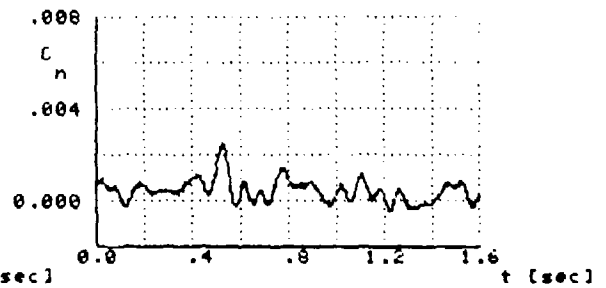
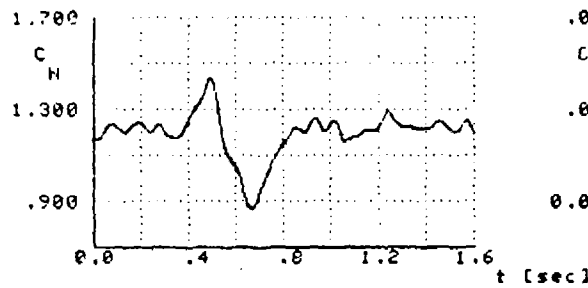
-.006

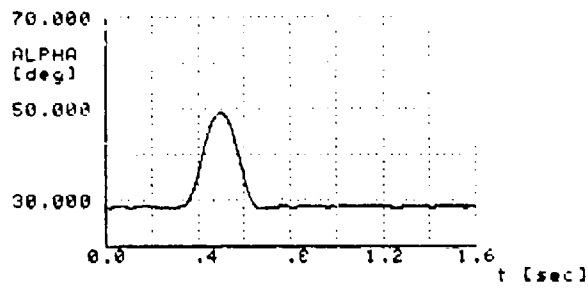
t [sec]



# (1-COS) INPUT

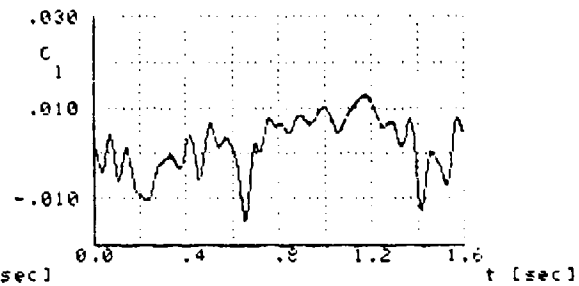
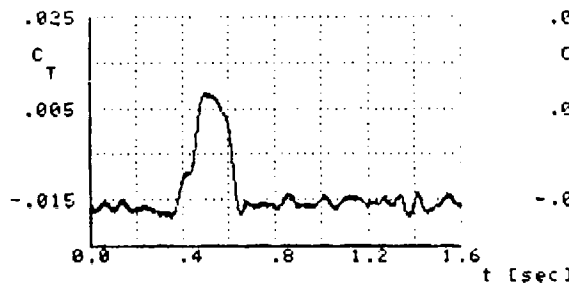
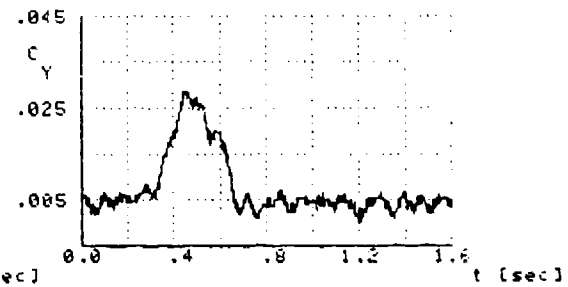
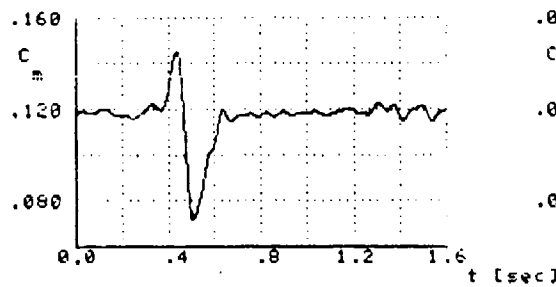
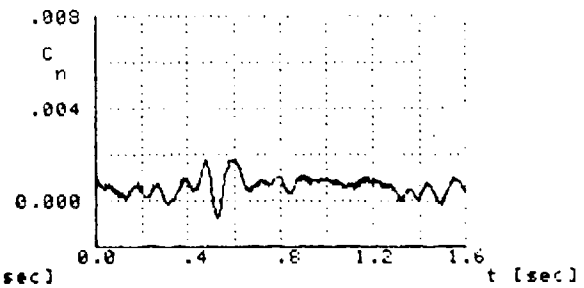
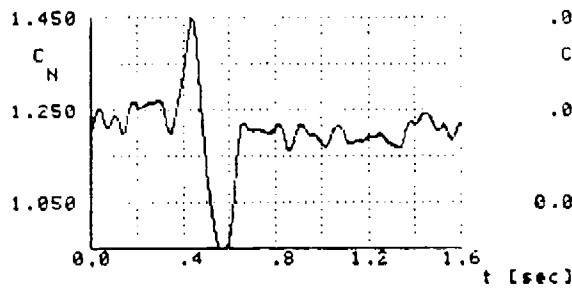
RUN = 3032  
 ALPHA<sub>A</sub> = 30 deg  
 DALPHA<sub>A</sub> = 24 deg  
 T = 500 msec



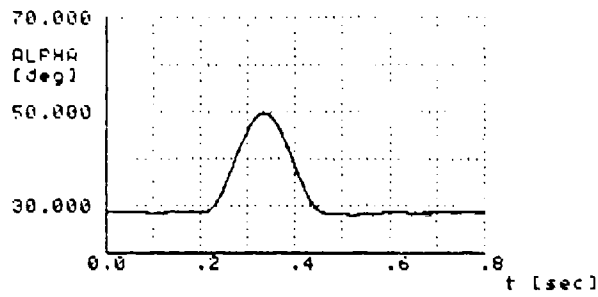


# (1-COS) INPUT

RUN = 3033  
ALPHA<sub>a</sub> = 30 deg  
DALPHA<sub>a</sub> = 24 deg  
T = 333 msec

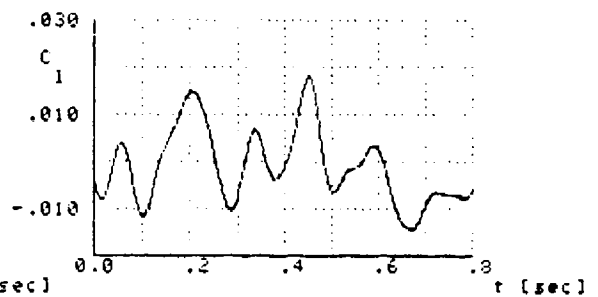
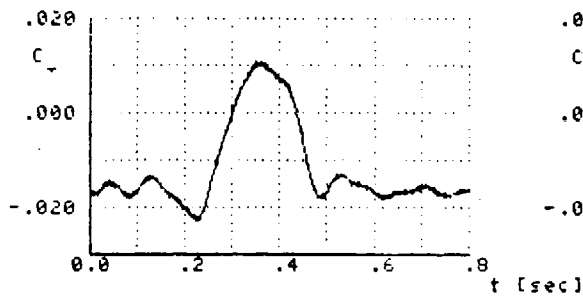
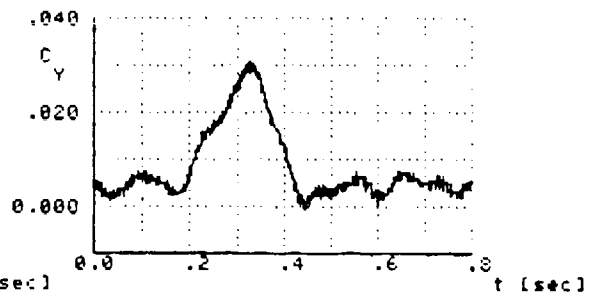
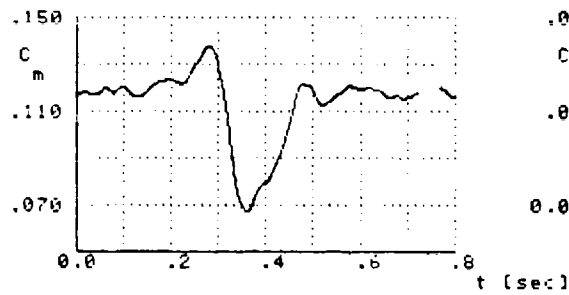
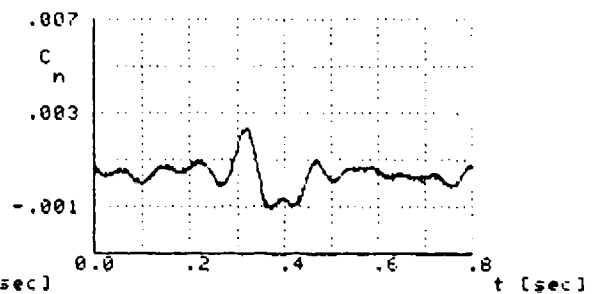
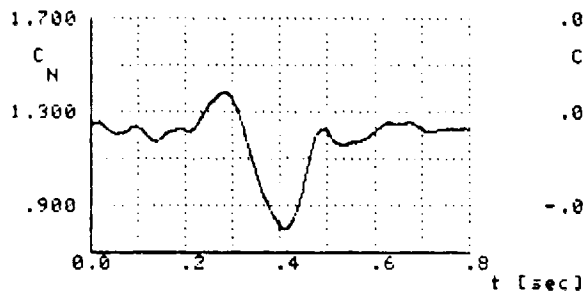


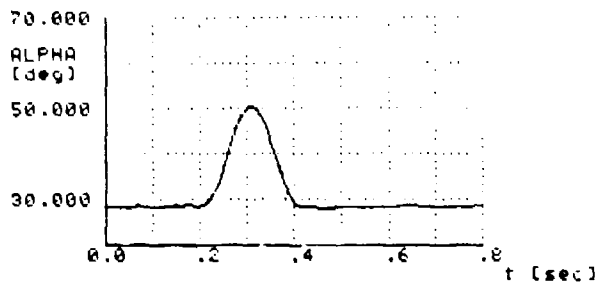




# (1-COS) INPUT

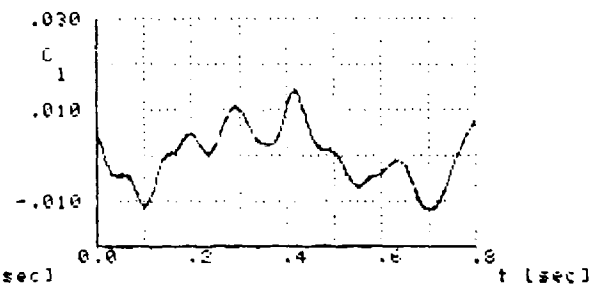
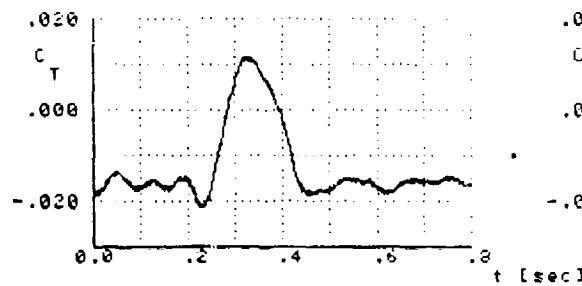
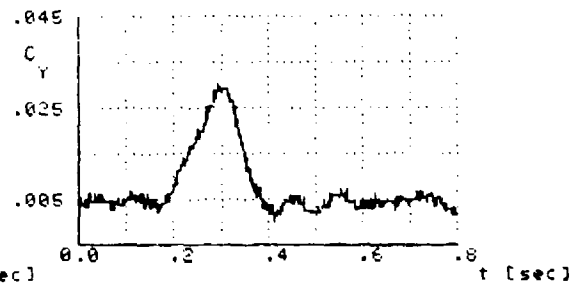
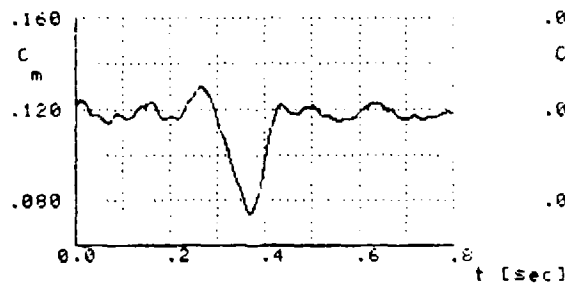
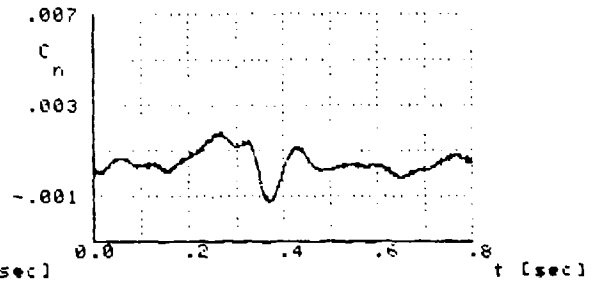
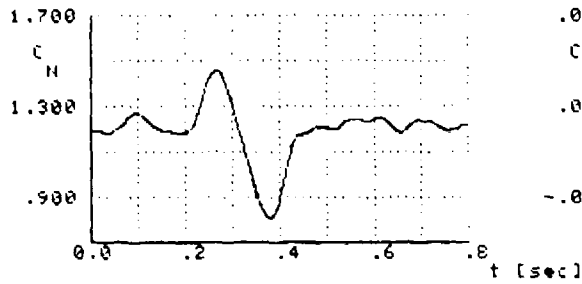
RUN = 3034  
 ALPHA = 30 deg  
 DALPHA = 24 deg  
 T = 250 msec

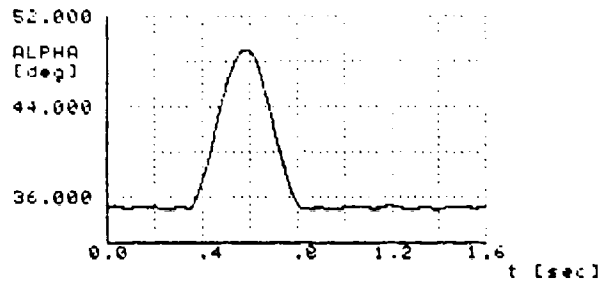




# (1-COS) INPUT

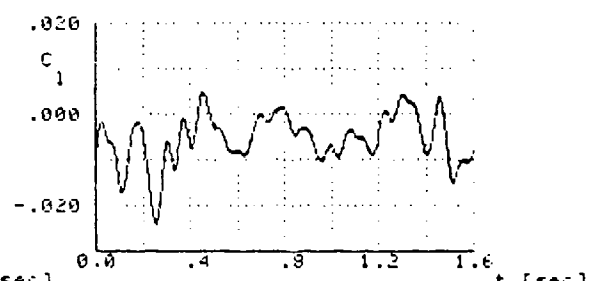
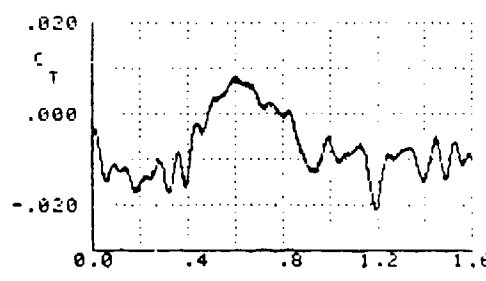
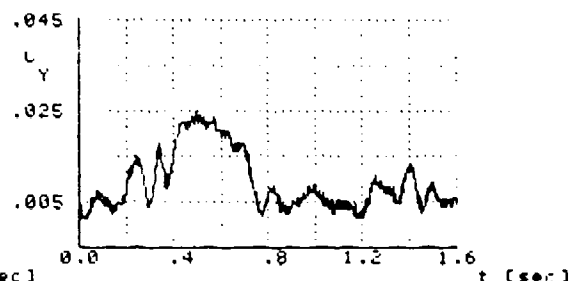
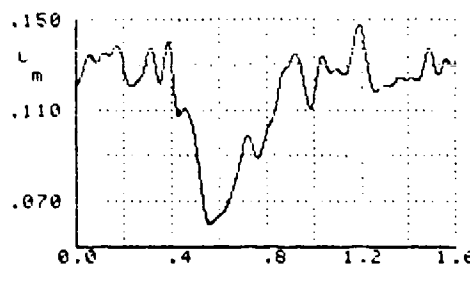
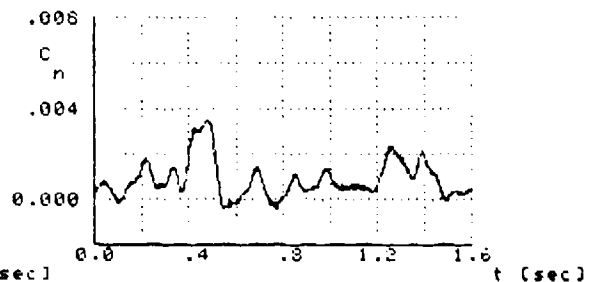
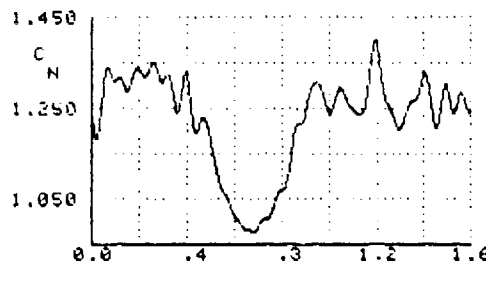
RUN = 3035  
 ALPHA = 30 deg  
 DALPHA = 24 deg  
 T = 200 msec

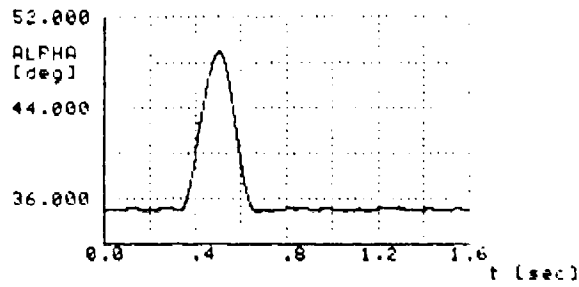




# (1-COS) INPUT

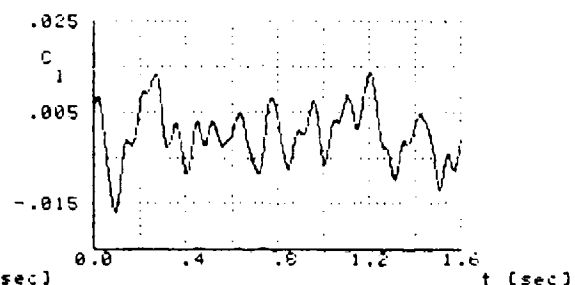
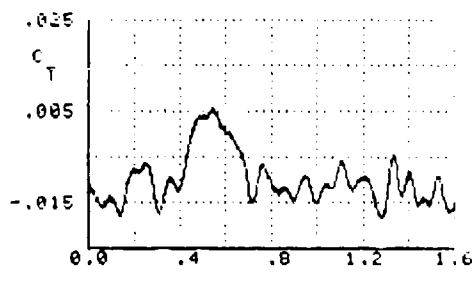
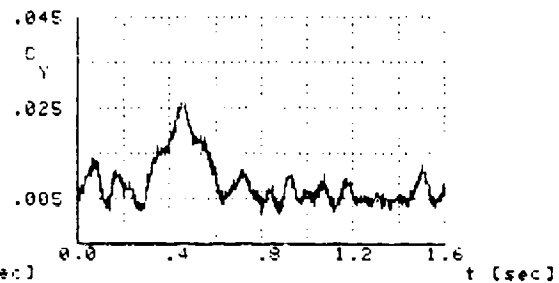
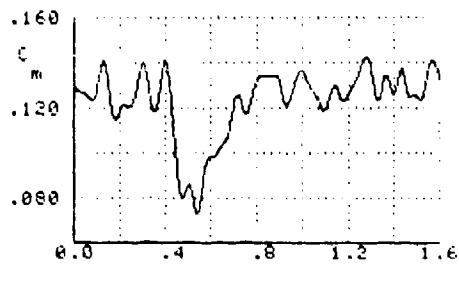
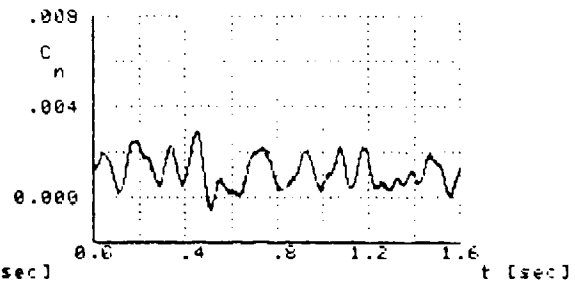
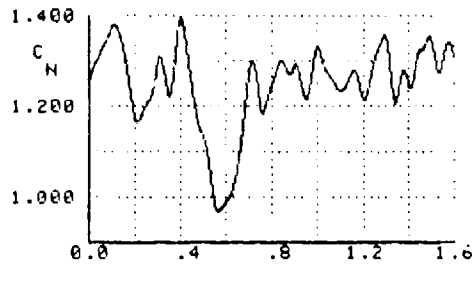
RUN = 3036  
 $\text{ALPHA}_a$  = 38 deg  
 $\text{DALPHA}_a$  = 16 deg  
 $T$  = 500 msec

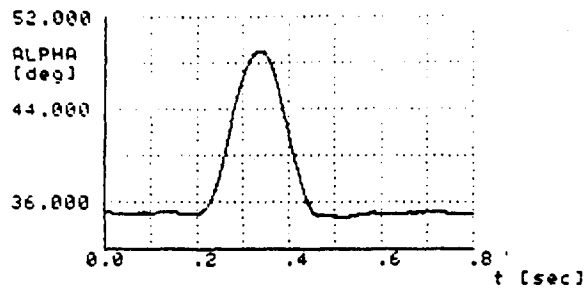




# (1-COS) INPUT

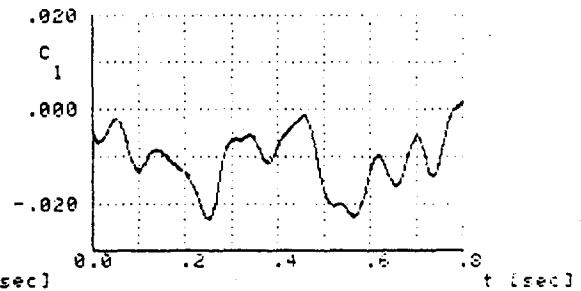
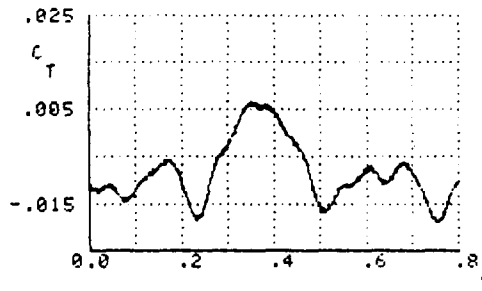
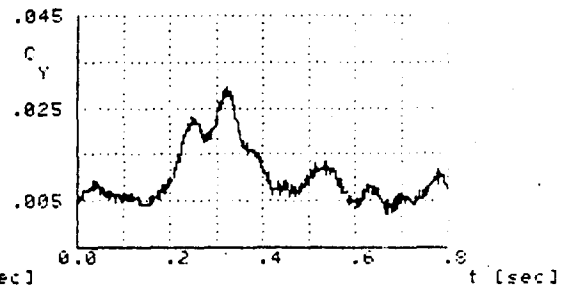
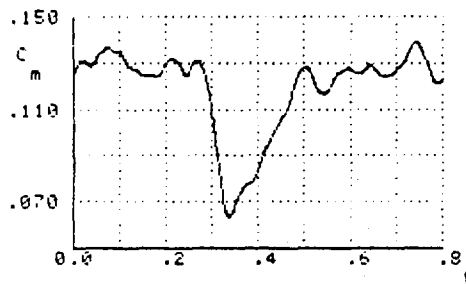
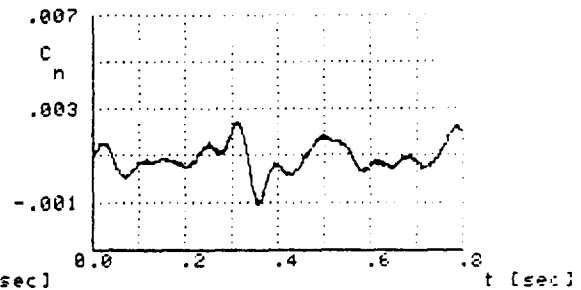
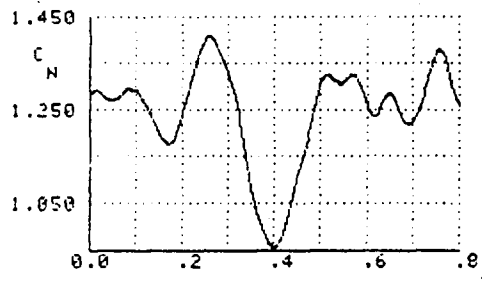
RUN = 3037  
 $\alpha_a$  = 38 deg  
 $\Delta\alpha_a$  = 16 deg  
 $T$  = 333 msec

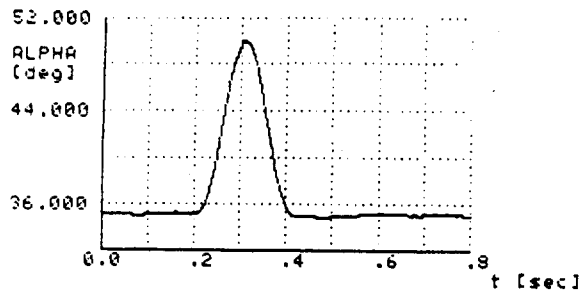




(1-COS) INPUT

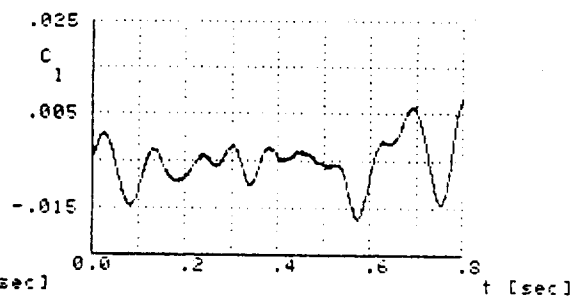
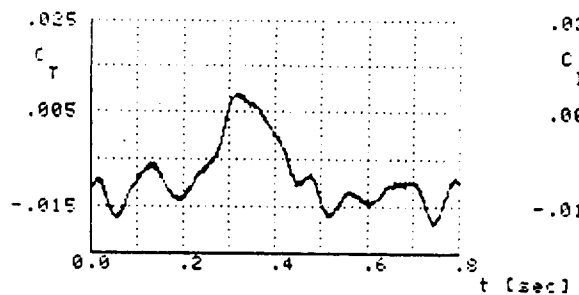
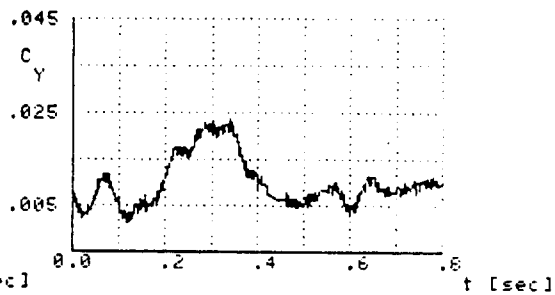
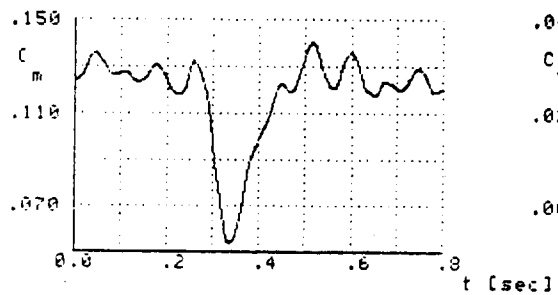
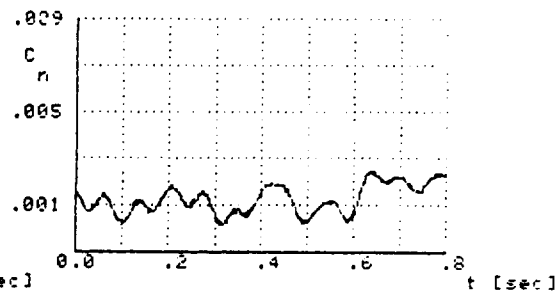
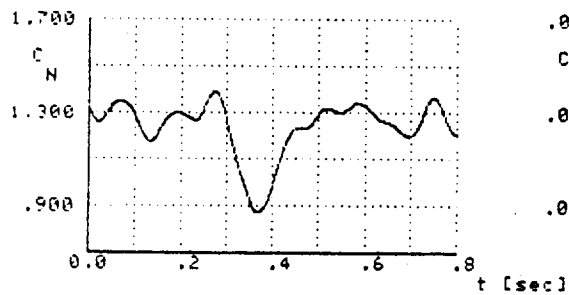
RUN = 3038  
 ALPHA<sub>a</sub> = 30 deg  
 D<sub>ALPHA</sub> = 16 deg  
 T = 250 msec

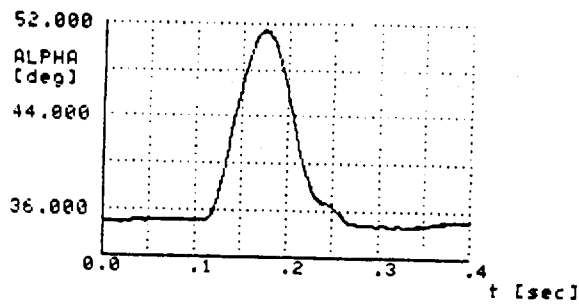




# (1-COS) INPUT

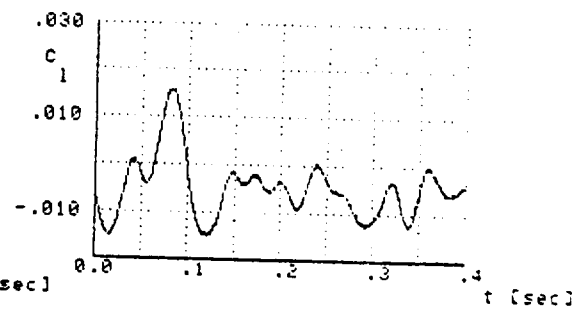
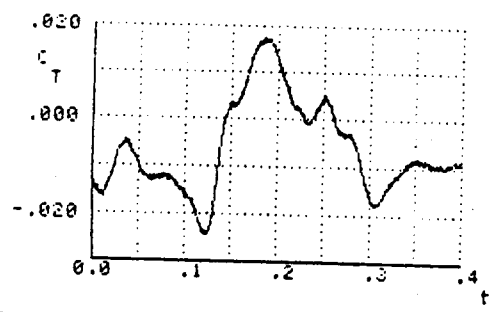
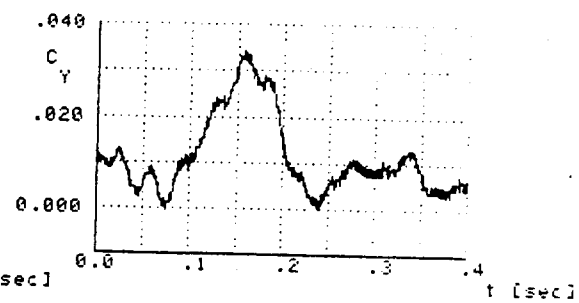
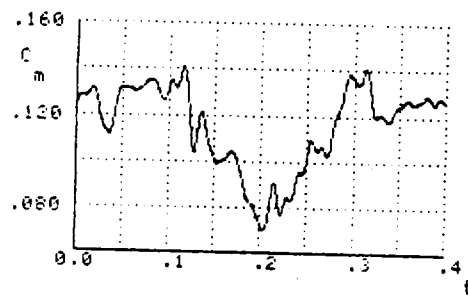
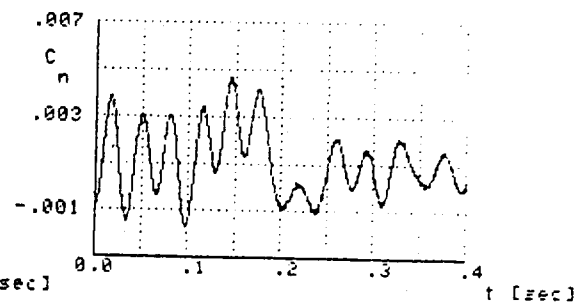
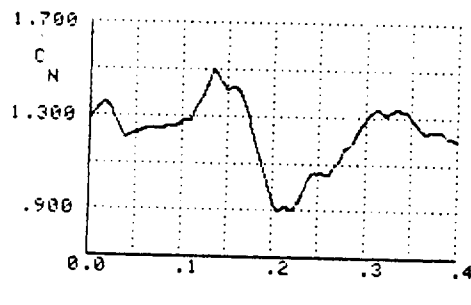
RUN = 3039  
ALPHA<sub>a</sub> = 38 deg  
DALPHA<sub>a</sub> = 16 deg  
T = 200 msec

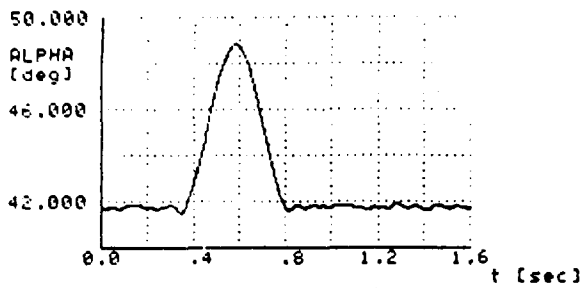




(1-COS) INPUT

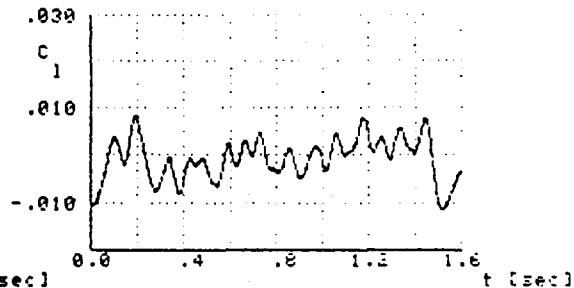
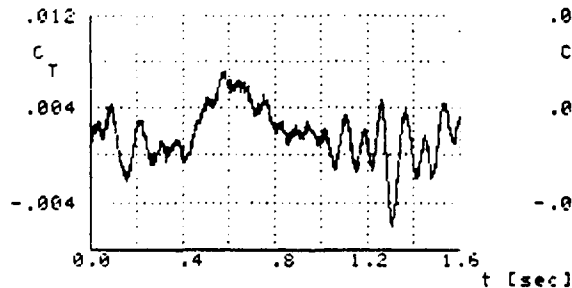
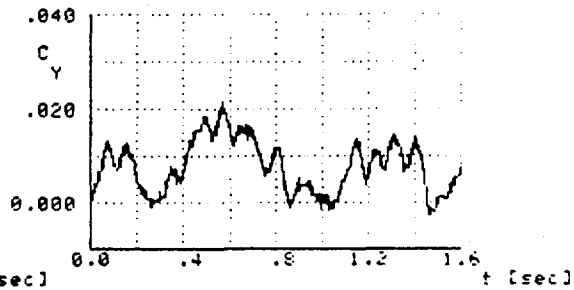
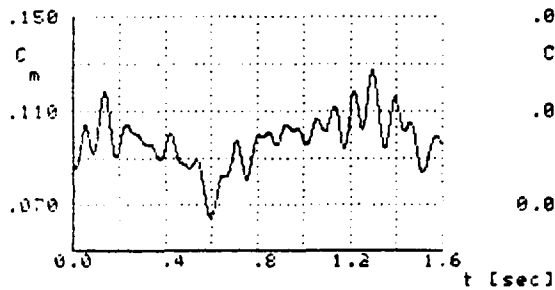
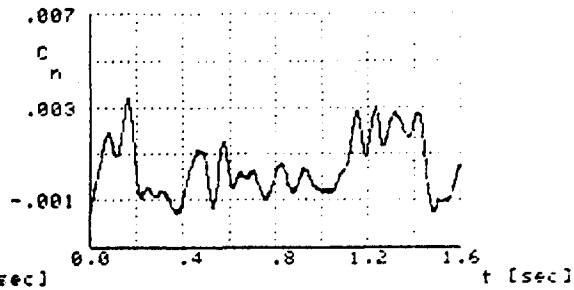
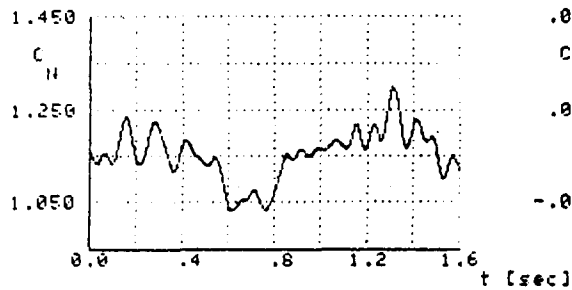
RUN = 3840  
 ALPHA<sub>a</sub> = 38 deg  
 DALPHA<sub>a</sub> = 16 deg  
 T = 125 msec



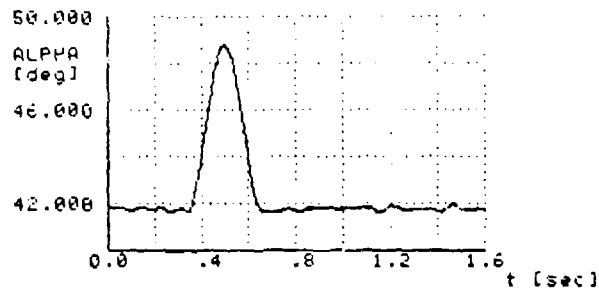


# (1-COS) INPUT

RUN = 3041  
 ALPHA<sub>a</sub> = 46 deg  
 DALPHA<sub>a</sub> = 8 deg  
 T = 500 msec

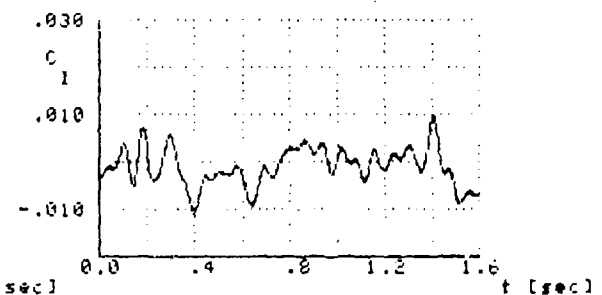
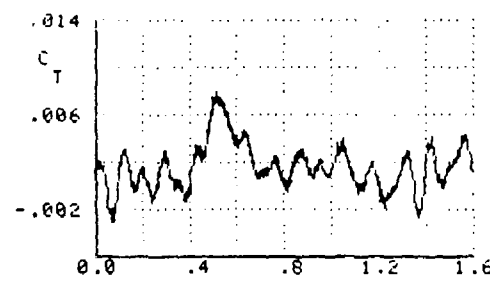
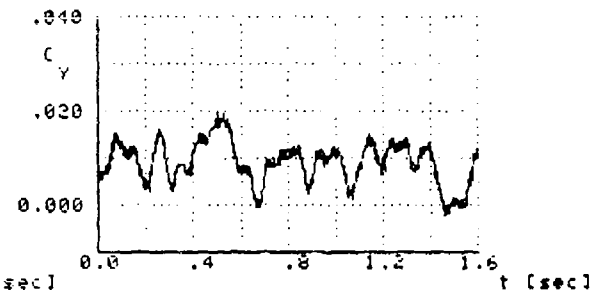
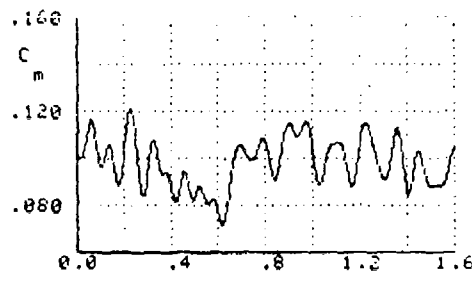
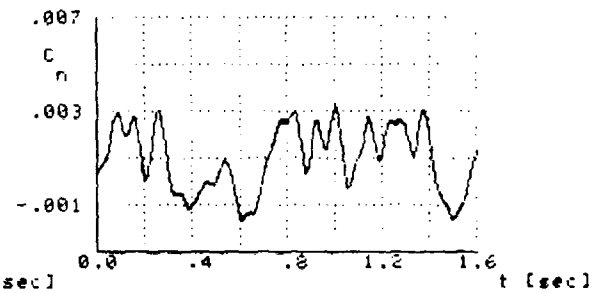
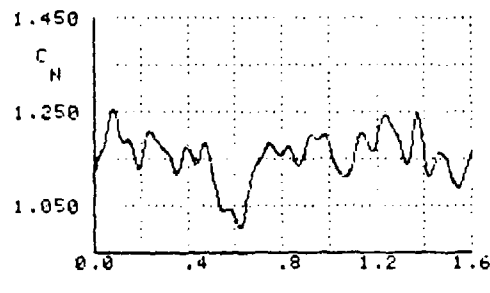


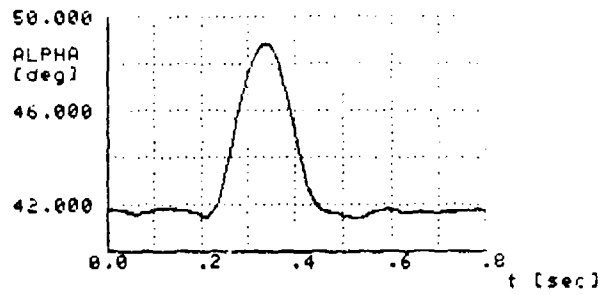




# (1-COS) INPUT

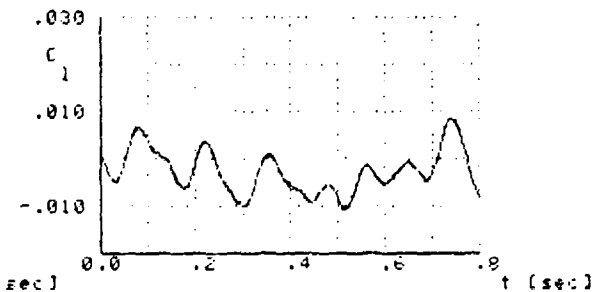
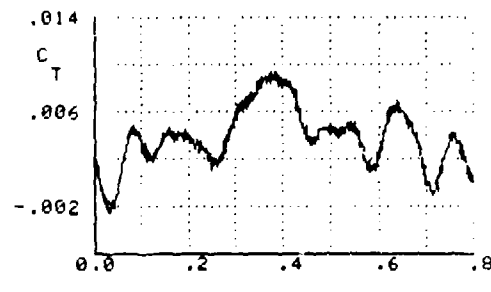
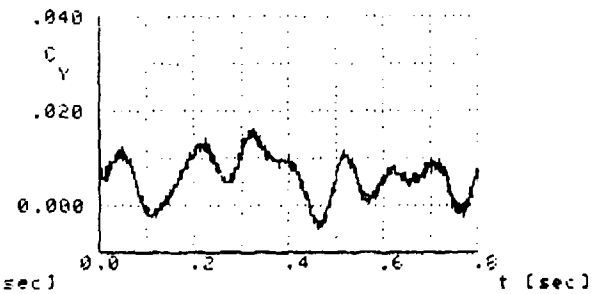
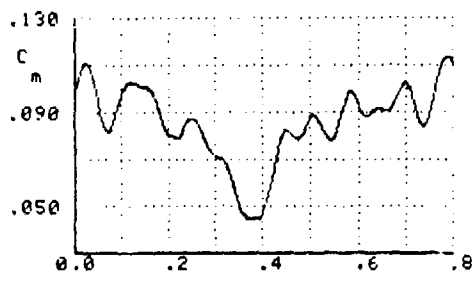
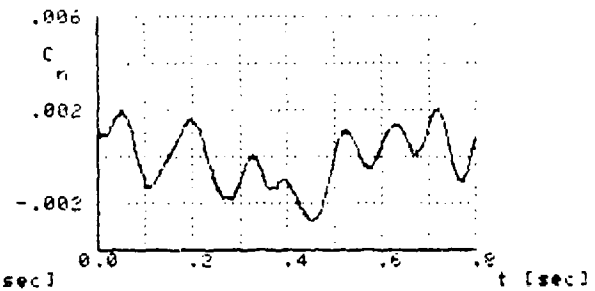
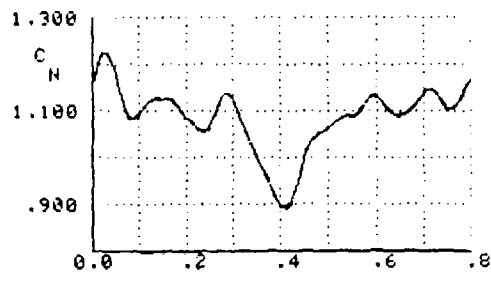
RUN = 3842  
 $\alpha_a$  = 46 deg  
 $\beta_a$  = 8 deg  
 $T$  = 333 msec

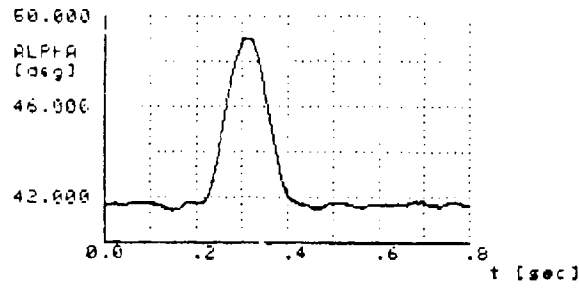




# (1-COS) INPUT

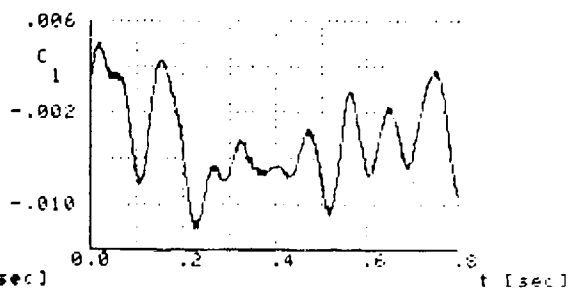
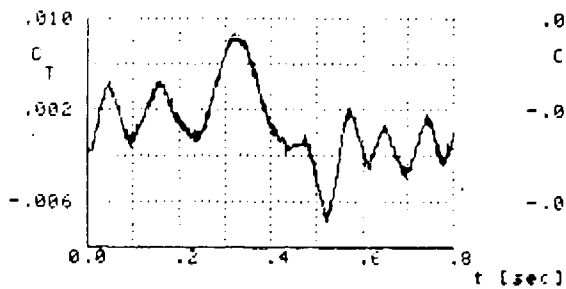
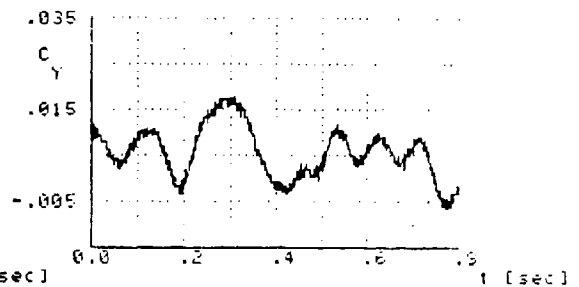
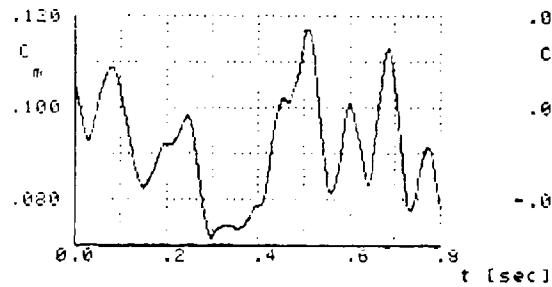
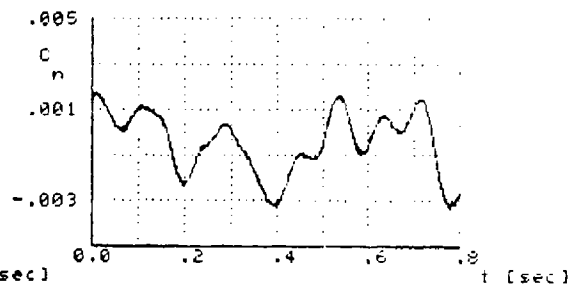
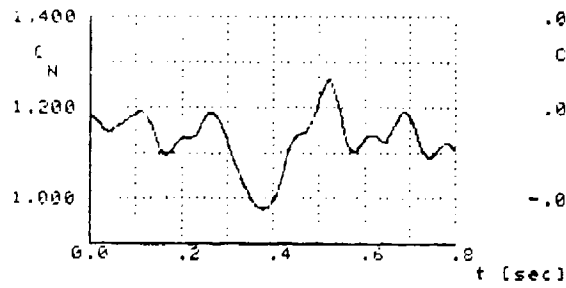
RUN = 3043  
 ALPHA<sub>a</sub> = 46 deg  
 DALPHA<sub>a</sub> = 8 deg  
 T = 250 msec

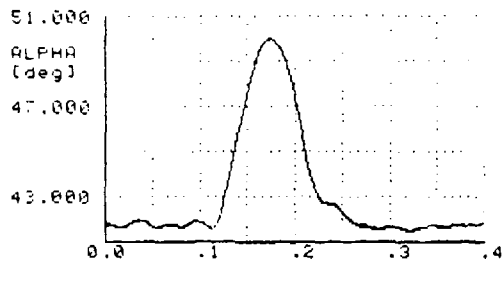




# (1-COS) INPUT

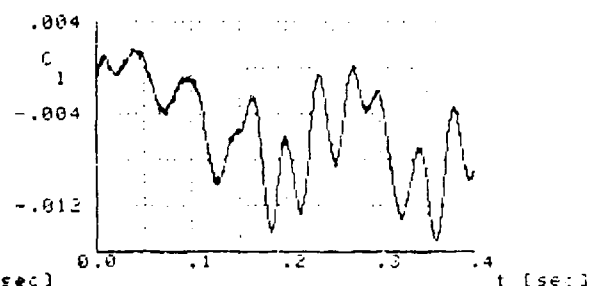
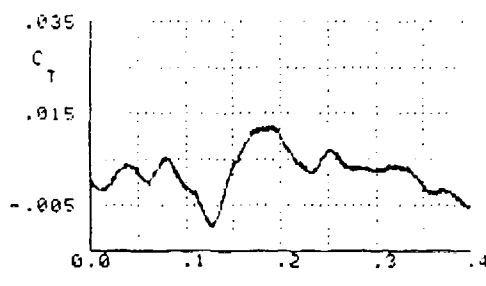
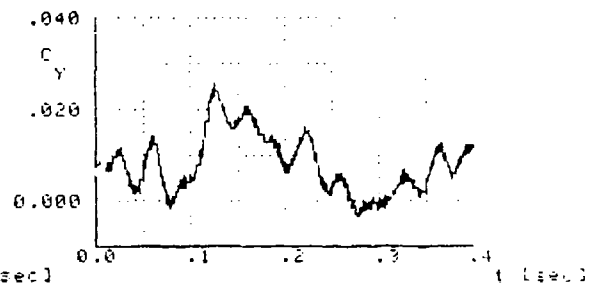
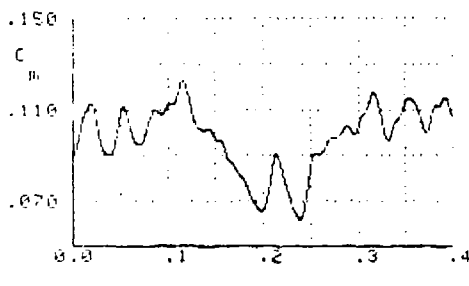
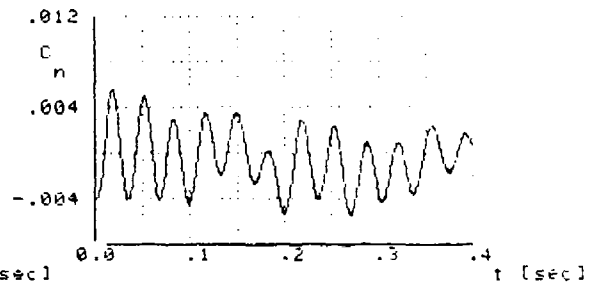
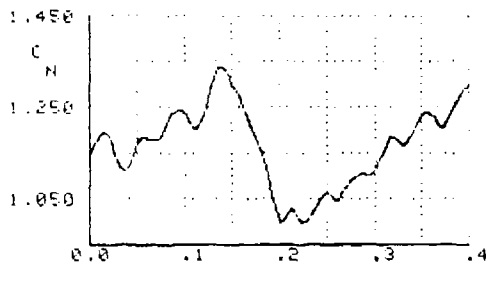
RUN = 3044  
 $\alpha = 46$  deg  
 $\Delta\alpha = 3$  deg  
 $T = 200$  msec

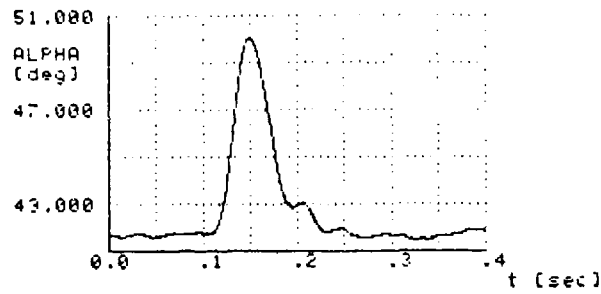




# (1-COS) INPUT

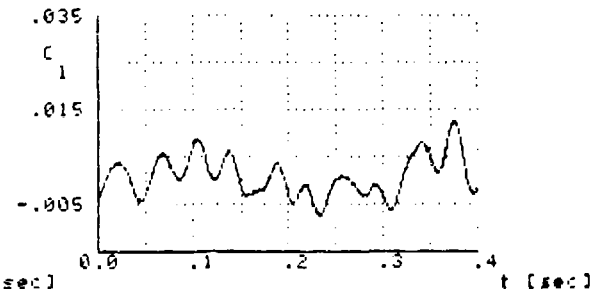
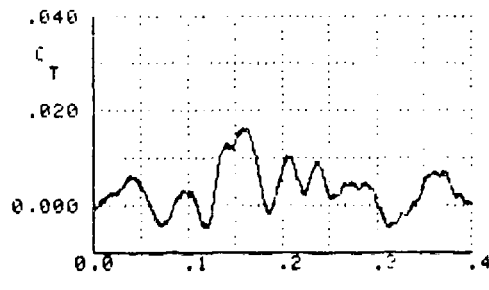
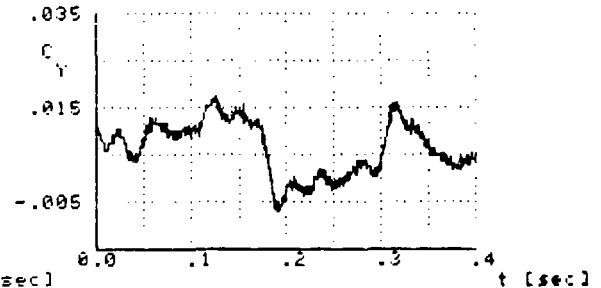
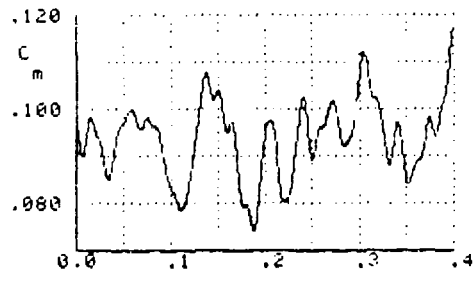
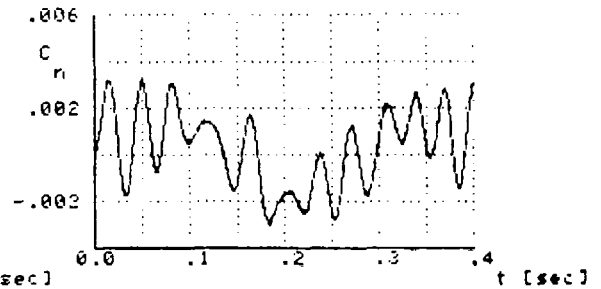
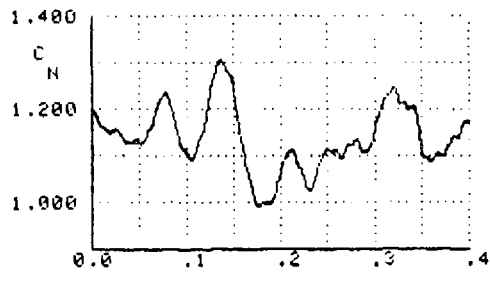
RUN = 3645  
 ALPHA<sub>a</sub> = 46 deg  
 DALPHA<sub>a</sub> = 8 deg  
 T = 125 msec

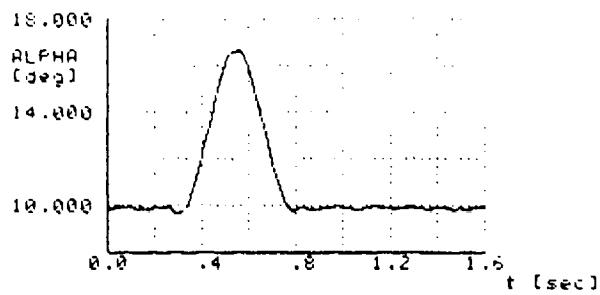




# (1-COS) INPUT

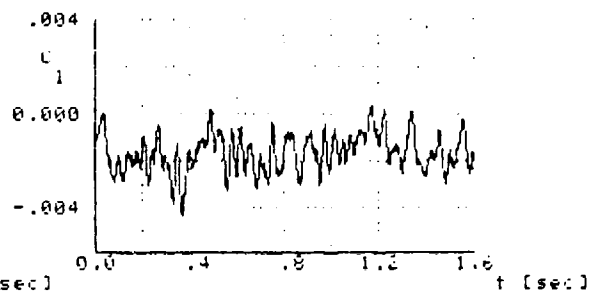
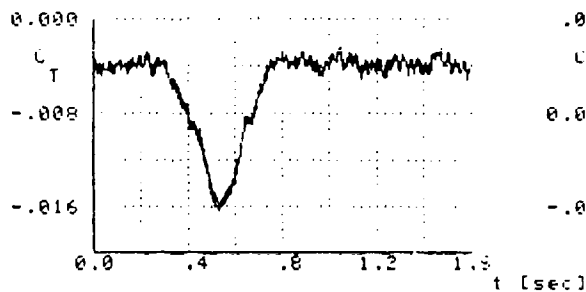
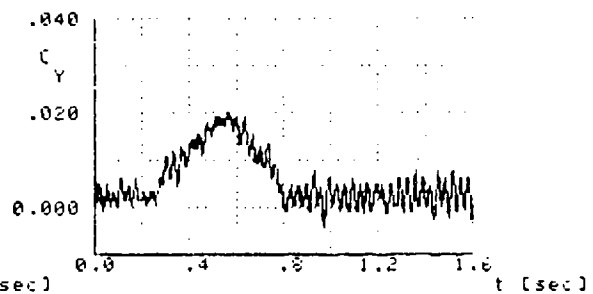
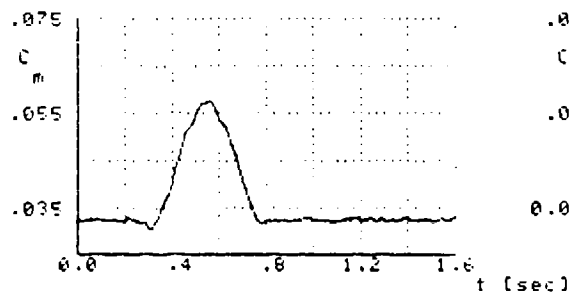
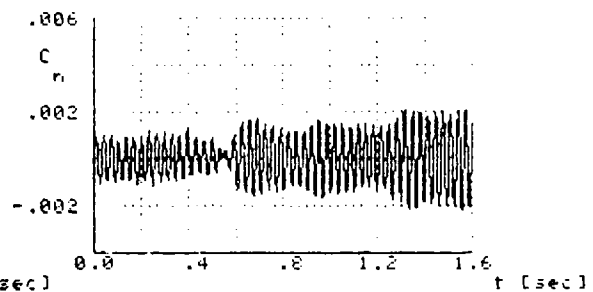
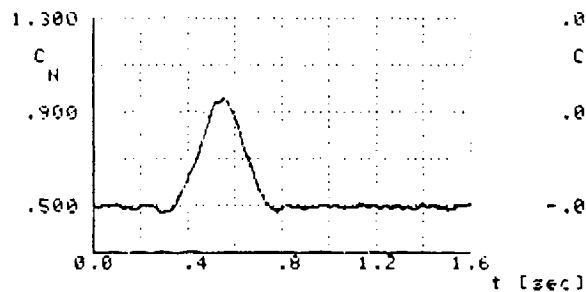
RUN = 3046  
 ALPHA<sub>a</sub> = 46 deg  
 ΔALPHA<sub>a</sub> = 8 deg  
 T = 83 msec

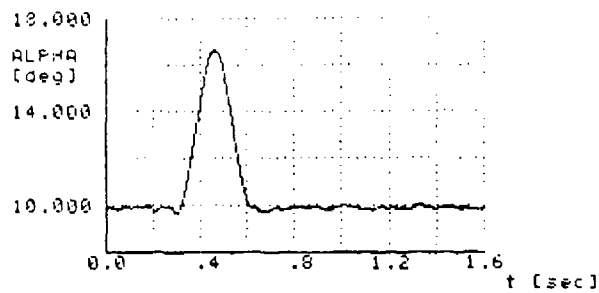




# (1-COS) INPUT

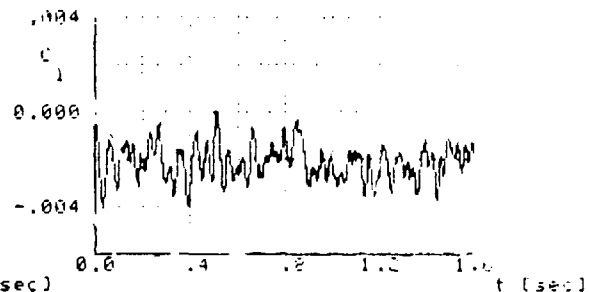
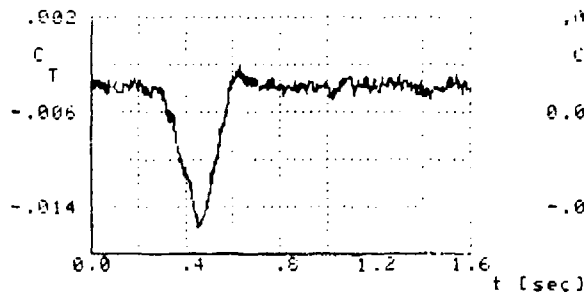
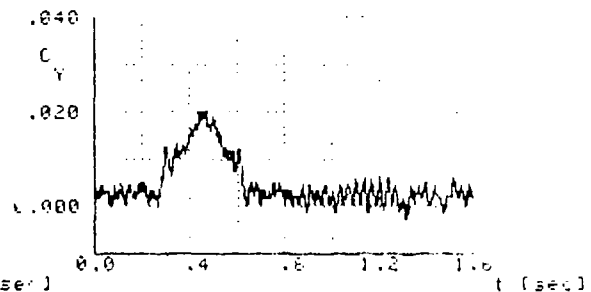
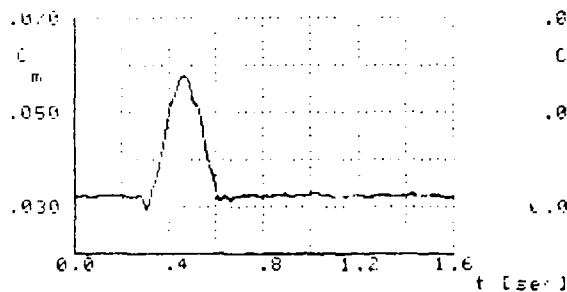
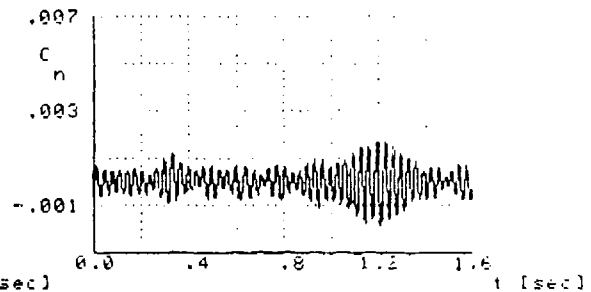
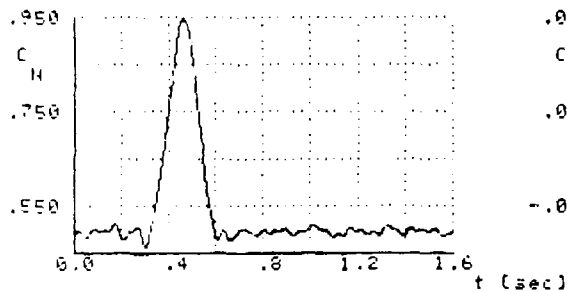
RUN = 3047  
 ALPHA<sub>a</sub> = 8 deg  
 DALPHA<sub>a</sub> = 6 deg  
 T = 500 msec

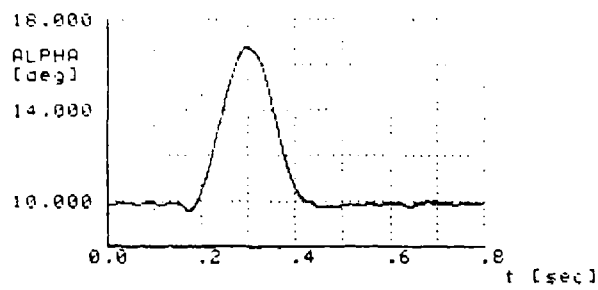




(1-COS) INPUT

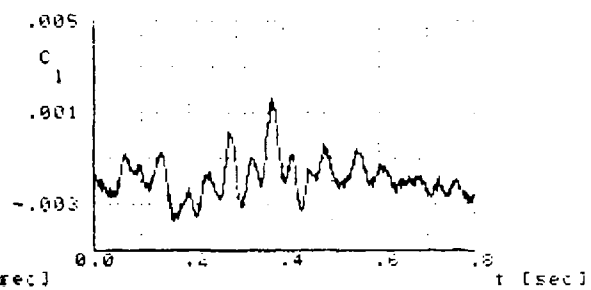
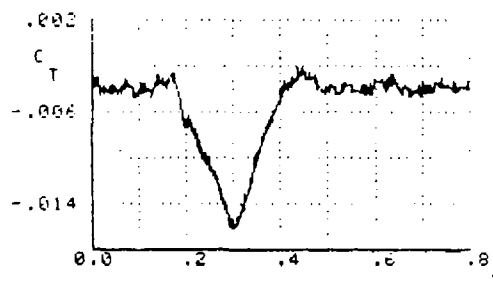
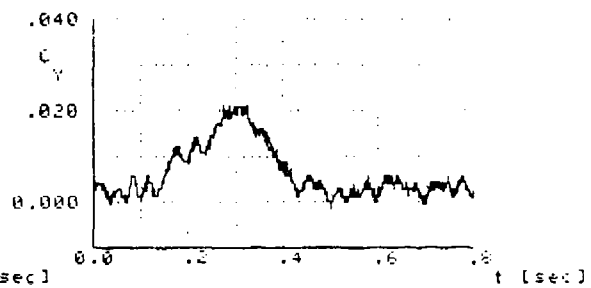
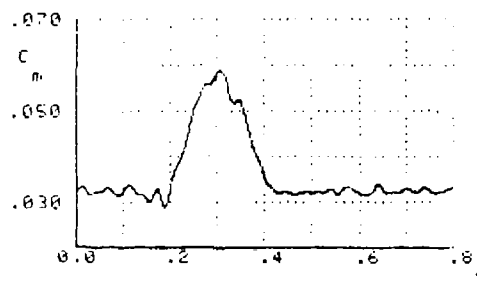
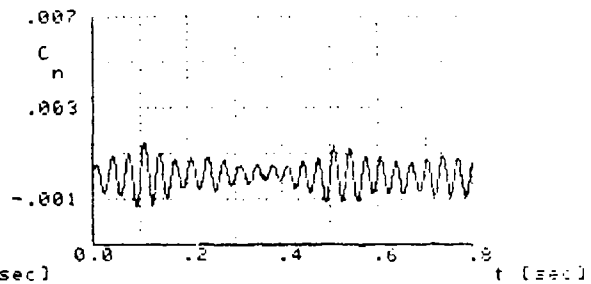
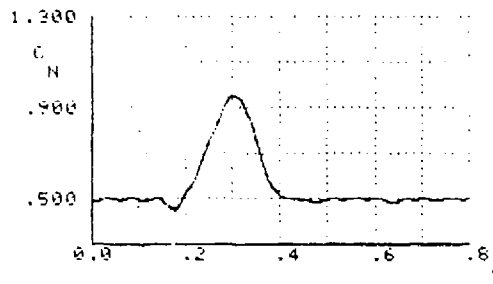
RUN = 3048  
ALPHA<sub>a</sub> = 8 deg  
DALPHA<sub>a</sub> = 8 deg  
T = 333 msec



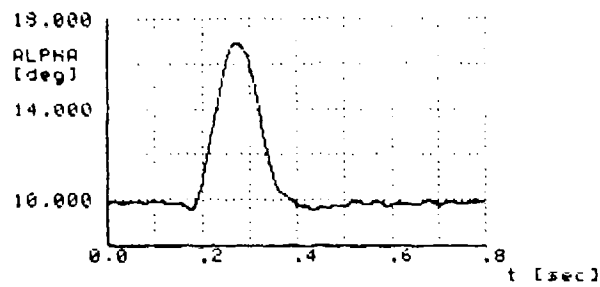


# (1-COS) INPUT

RUN = 3049  
ALPHA<sub>a</sub> = 8 deg  
DALPHA<sub>a</sub> = 8 deg  
T = 250 msec

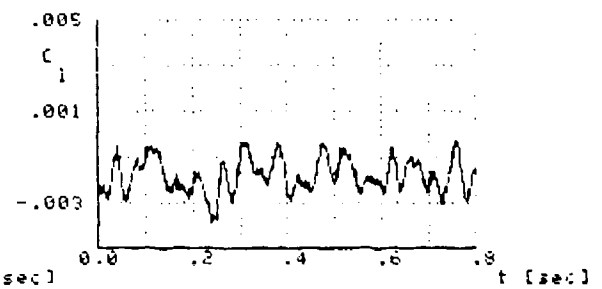
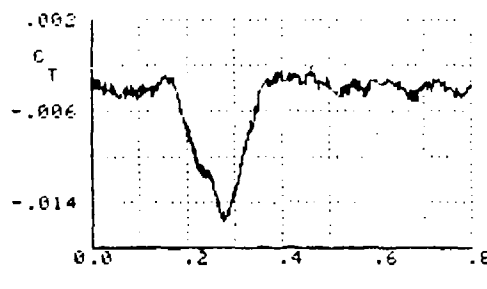
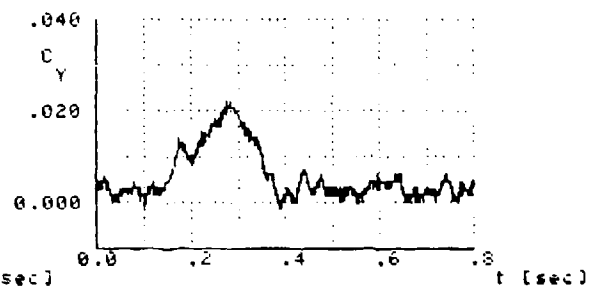
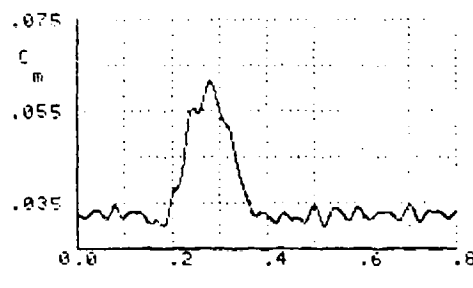
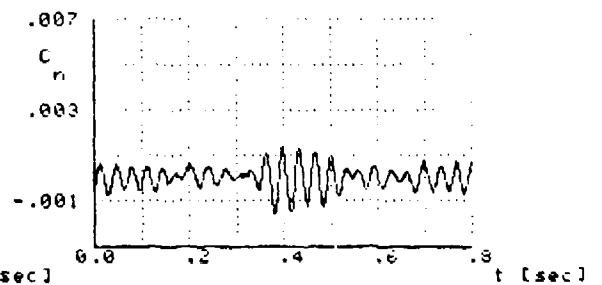
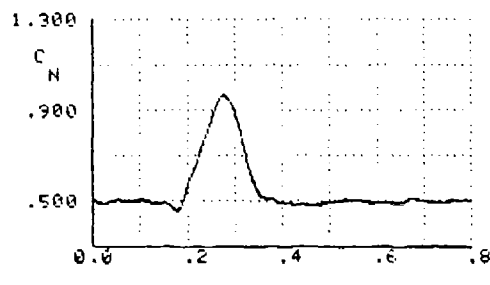


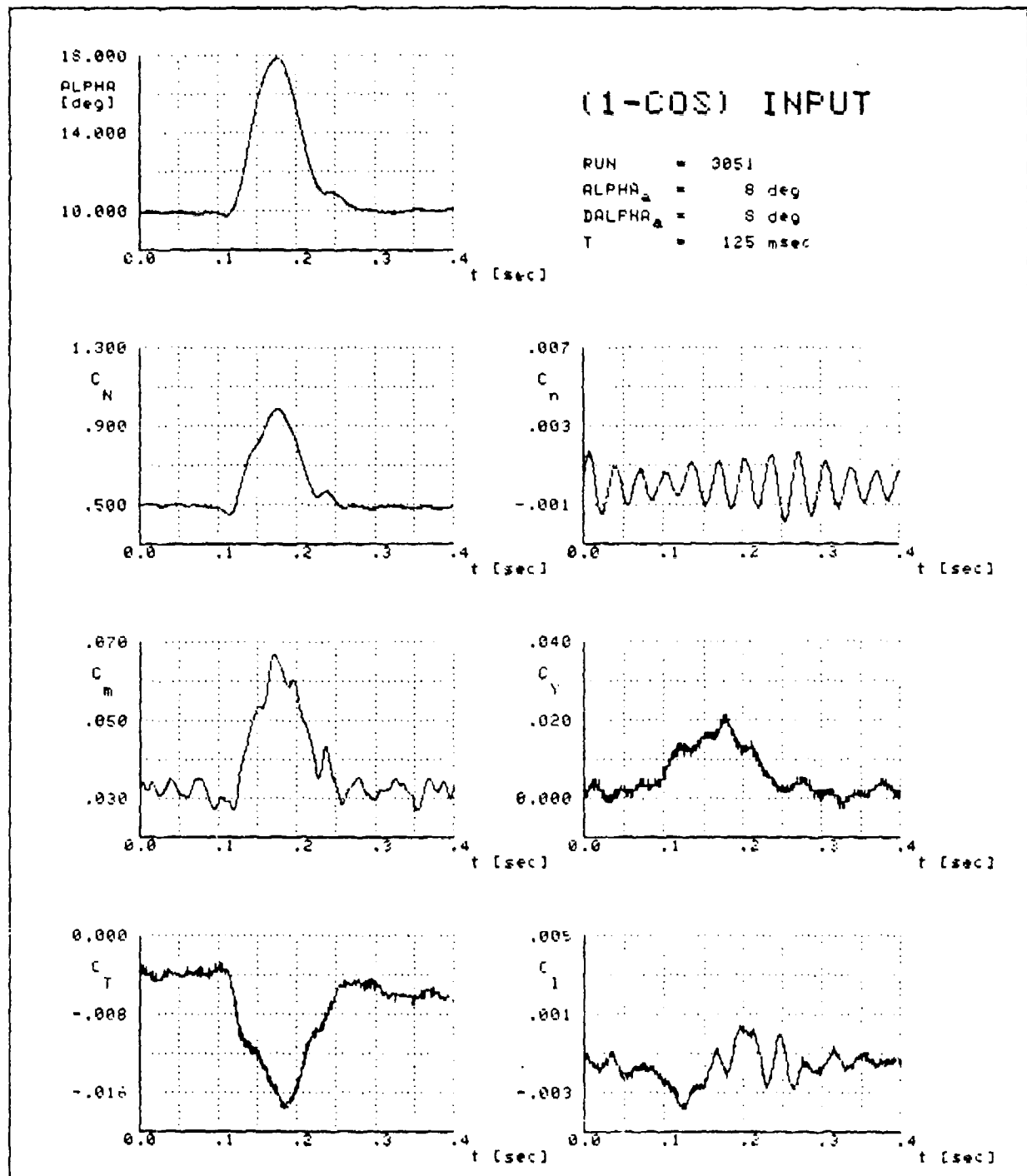


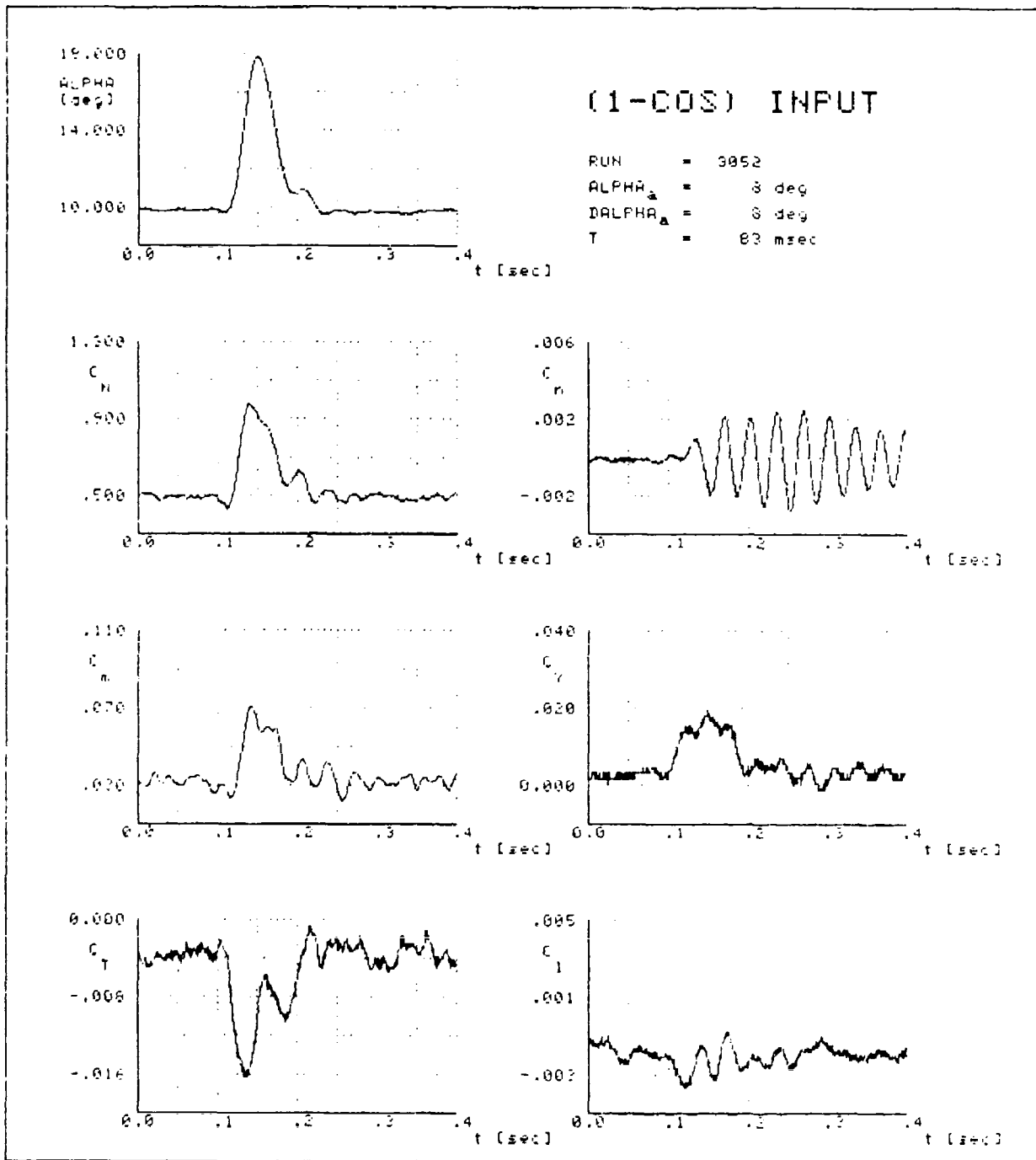


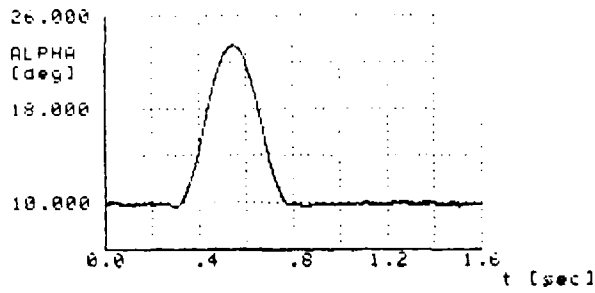
# (1-COS) INPUT

RUN = 3050  
 $\alpha_a$  = 6 deg  
 $\Delta\alpha_a$  = 6 deg  
 $T$  = 200 msec



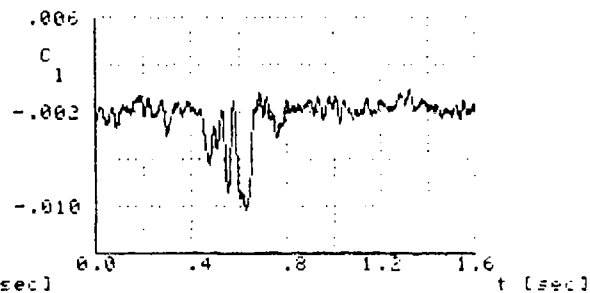
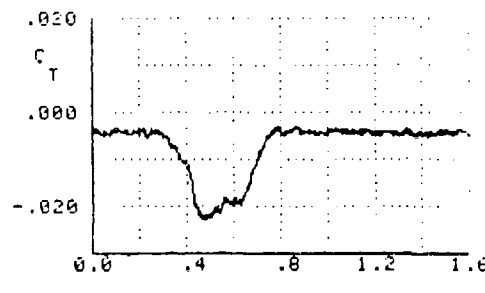
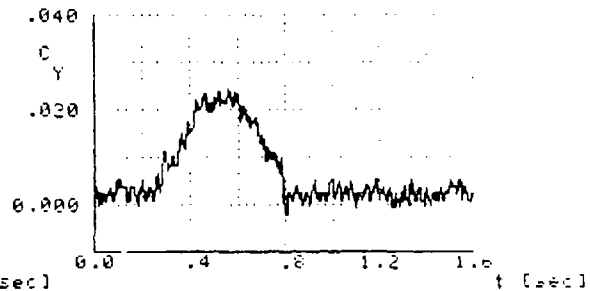
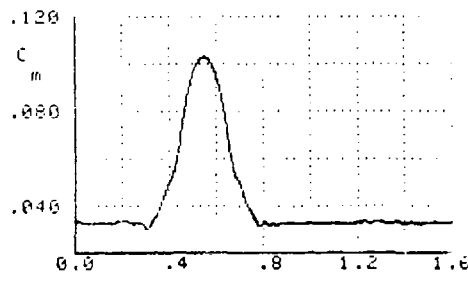
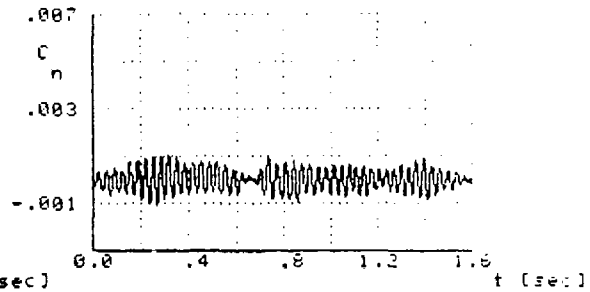
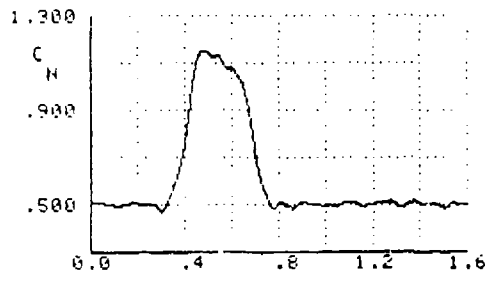


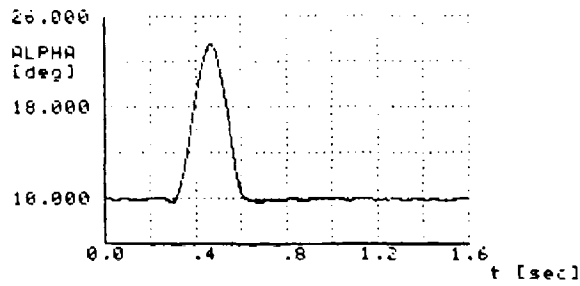




# (1-COS) INPUT

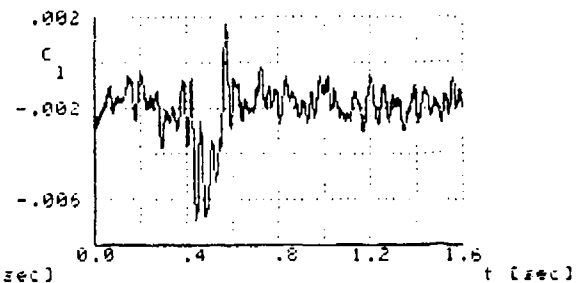
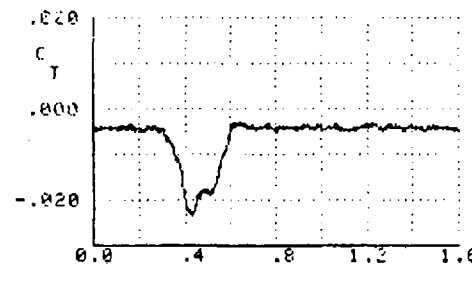
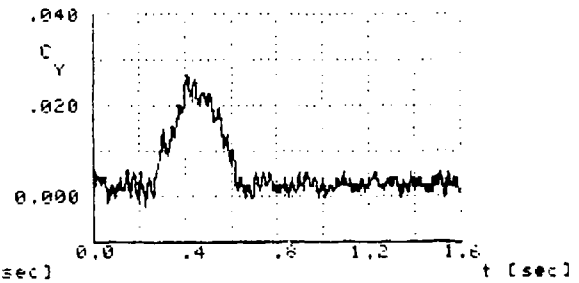
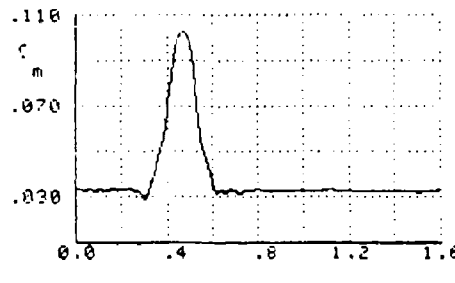
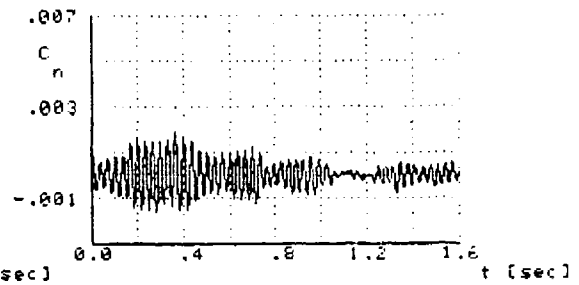
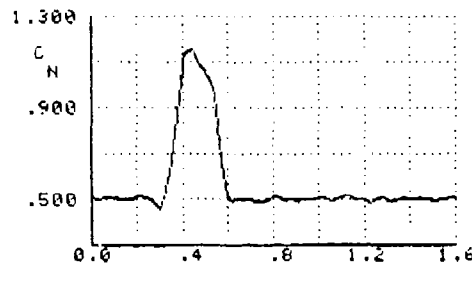
RUN = 3053  
 ALPHA<sub>A</sub> = 8 deg  
 DALPHA<sub>A</sub> = 16 deg  
 T = 500 msec

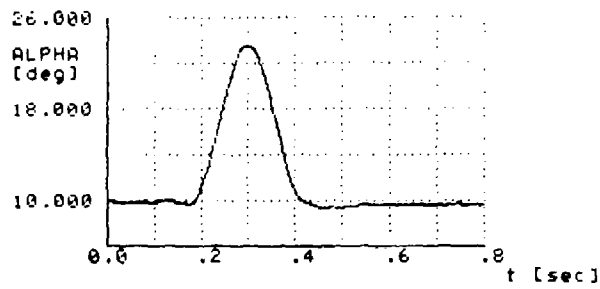




# (1-COS) INPUT

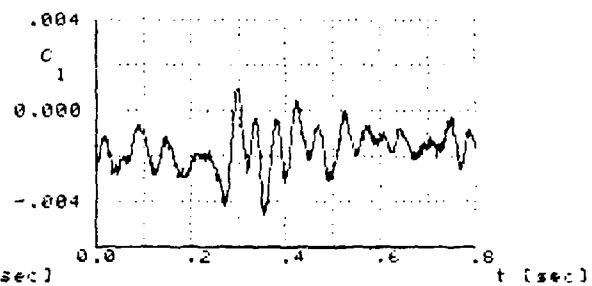
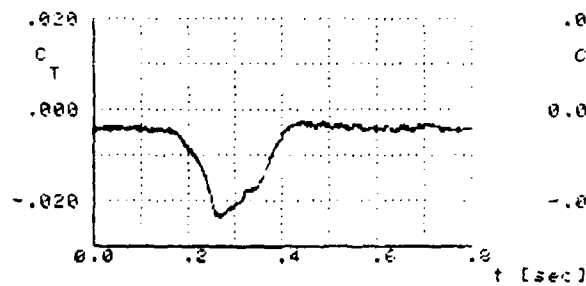
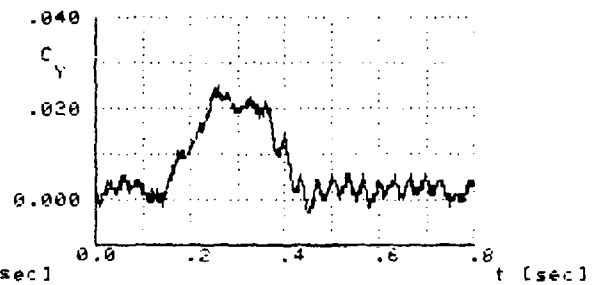
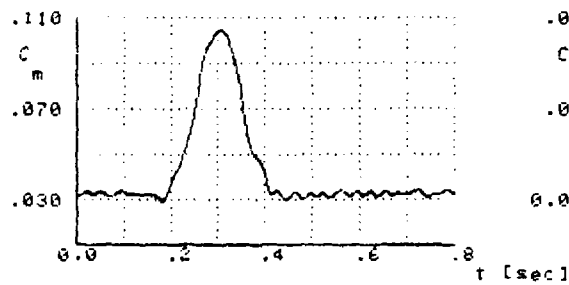
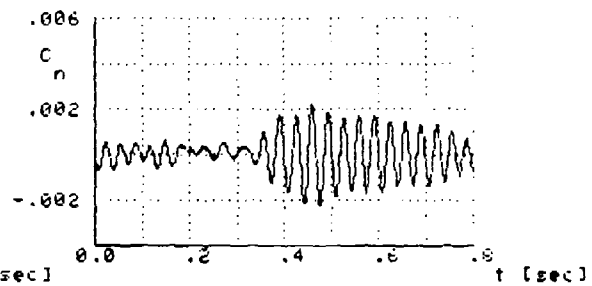
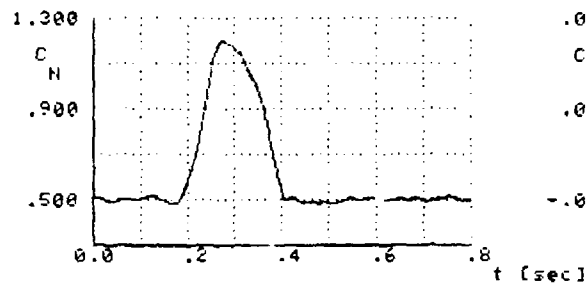
RUN = 3054  
 $\alpha_a$  = 8 deg  
 $\Delta\alpha_a$  = 16 deg  
 $T$  = 333 msec

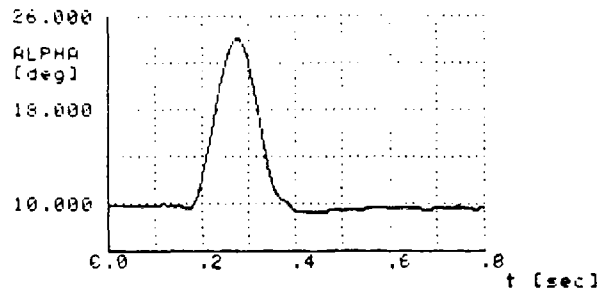




# (1-COS) INPUT

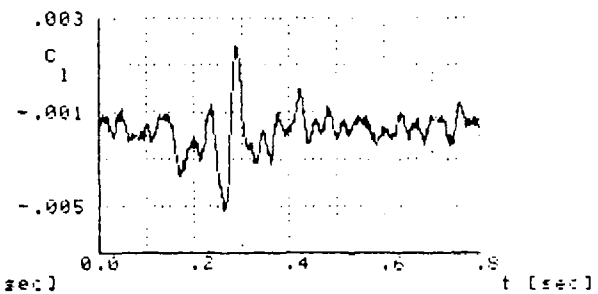
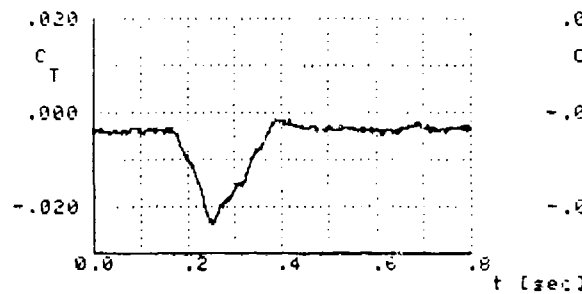
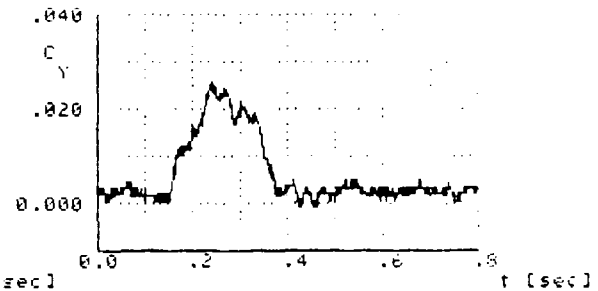
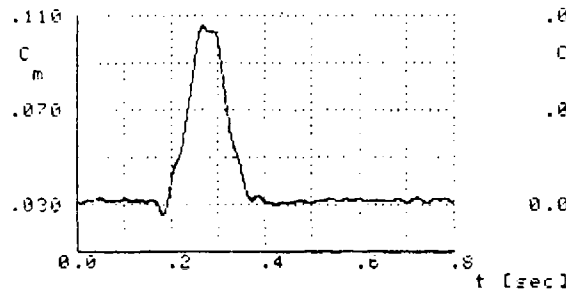
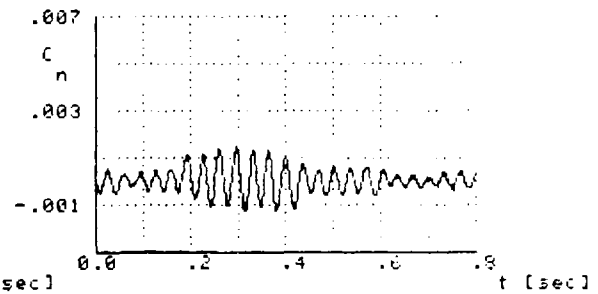
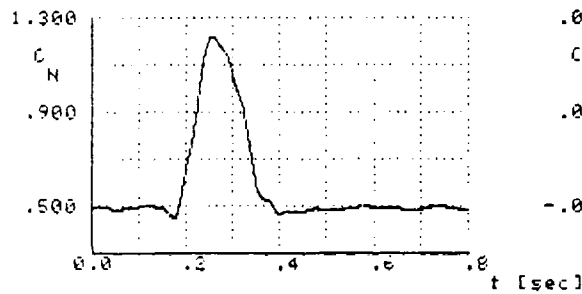
RUN = 3055  
 ALPHA<sub>a</sub> = 8 deg  
 DALPHA<sub>a</sub> = 16 deg  
 T = 250 msec

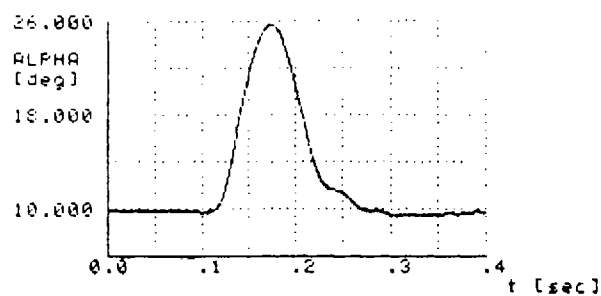




# (1-COS) INPUT

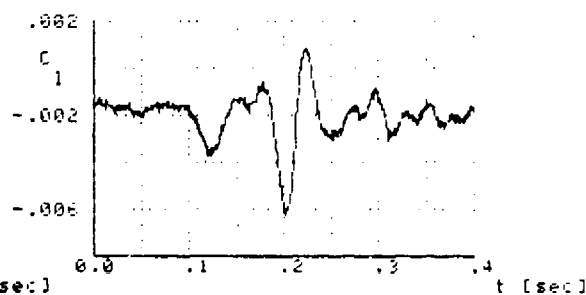
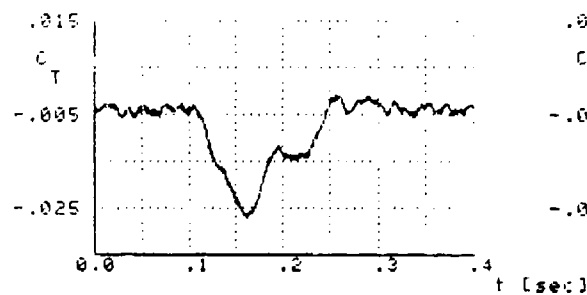
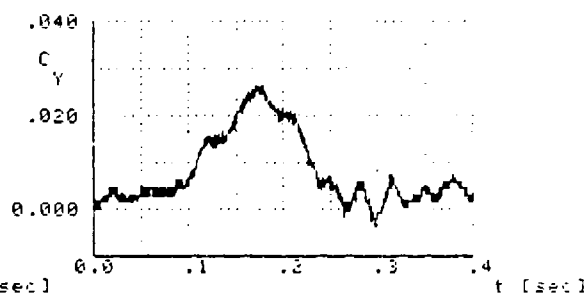
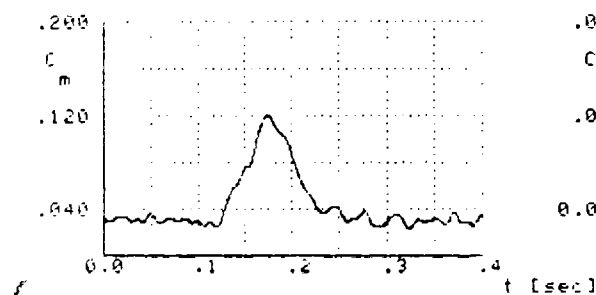
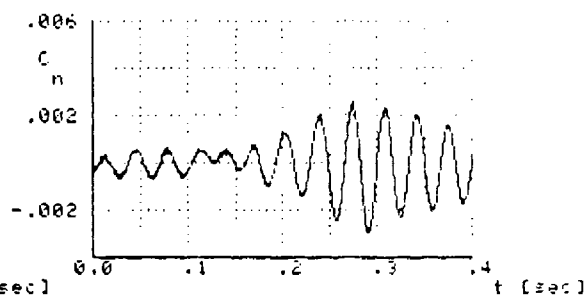
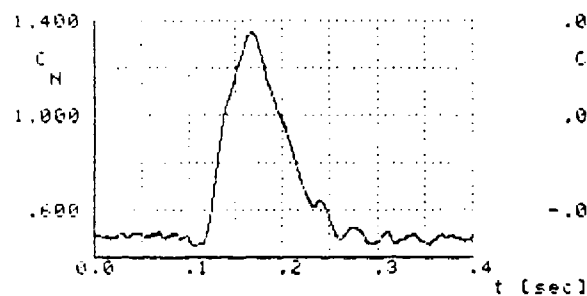
RUN = 3056  
 ALPHA<sub>a</sub> = 8 deg  
 DALPHA<sub>a</sub> = 16 deg  
 T = 200 msec



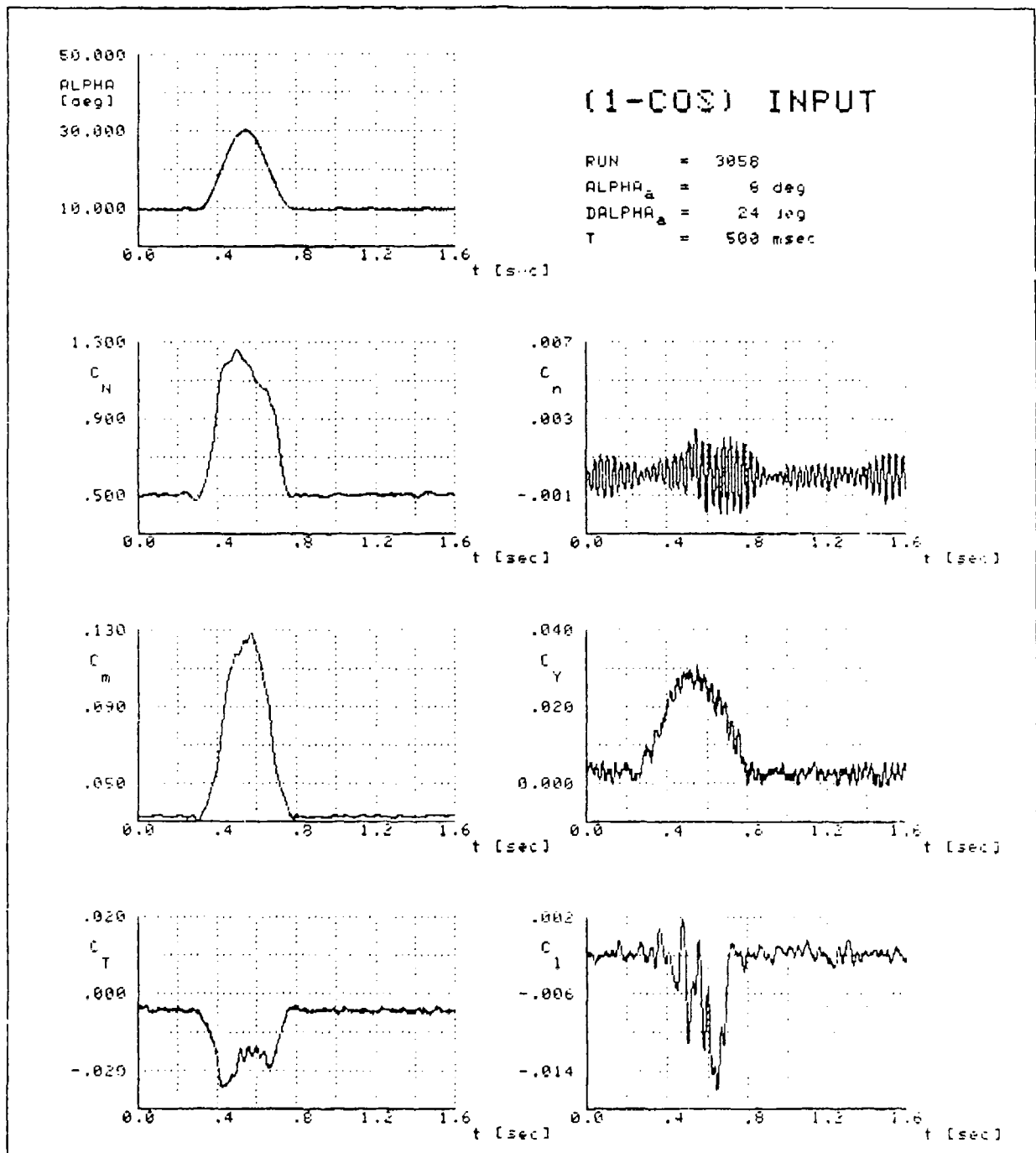


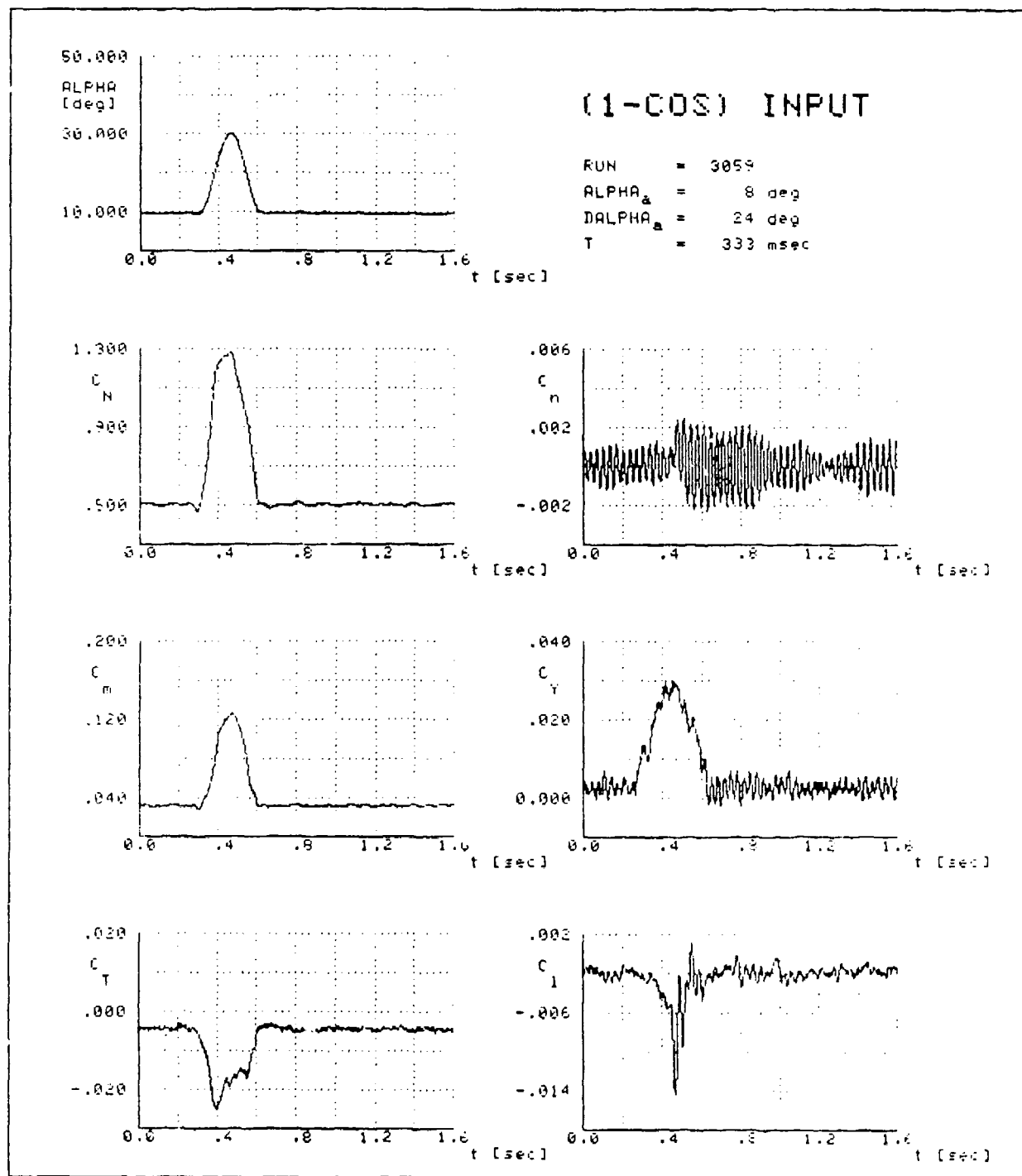
# (1-COS) INPUT

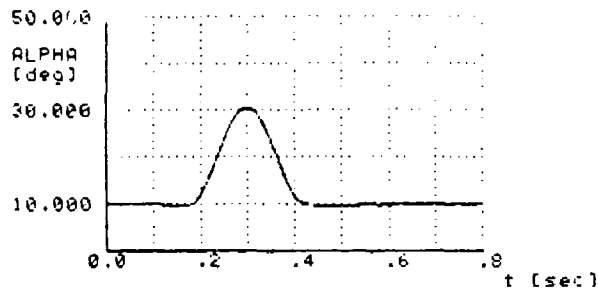
RUN = 3057  
 ALPHA<sub>a</sub> = 8 deg  
 DALPHA<sub>a</sub> = 16 deg  
 T = 125 msec





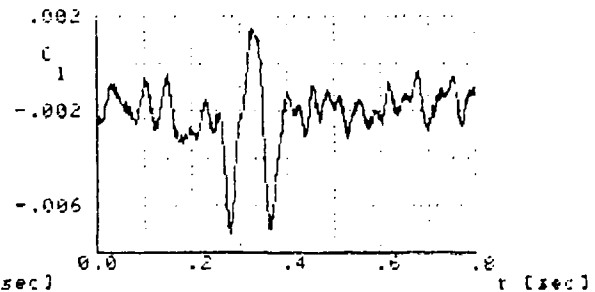
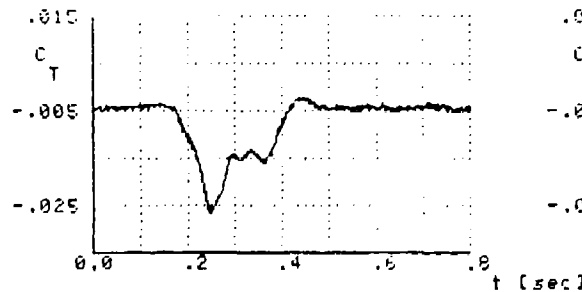
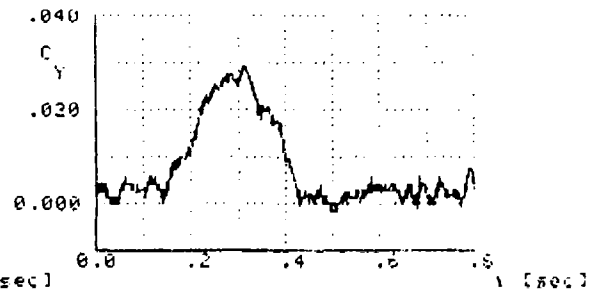
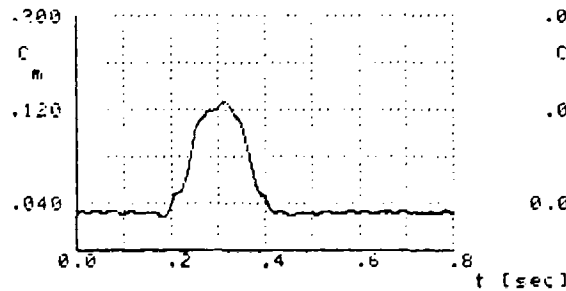
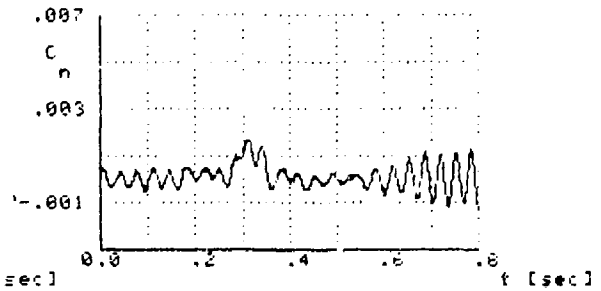
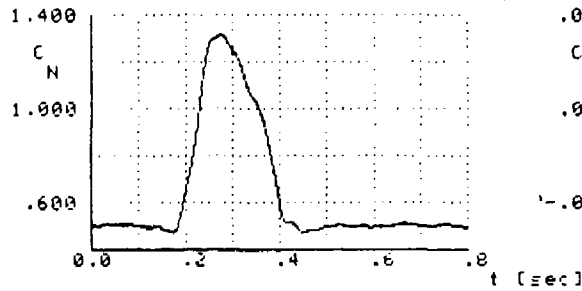


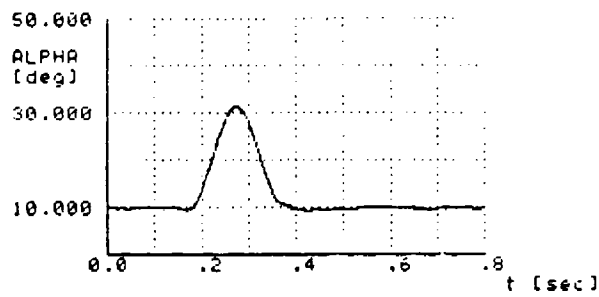




# (1-COS) INPUT

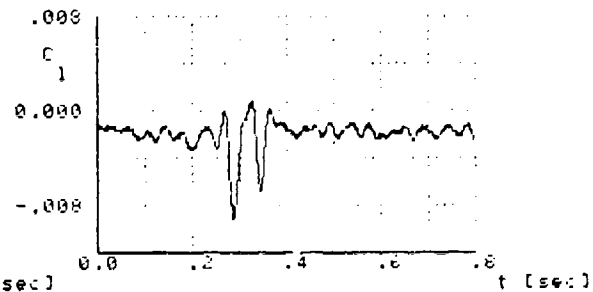
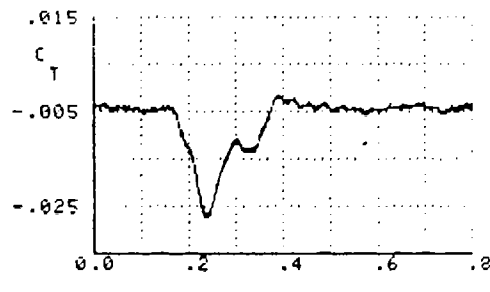
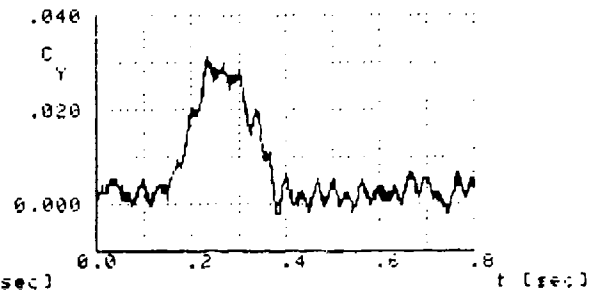
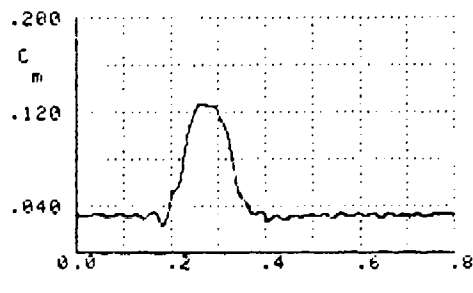
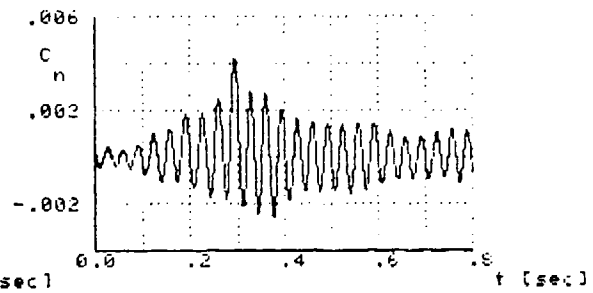
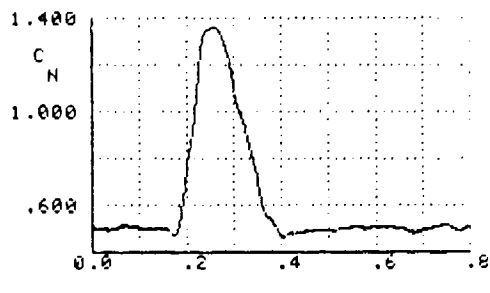
PUN = 3060  
 ALPHA = 8 deg  
 DIALPHA = 24 deg  
 T = 250 msec

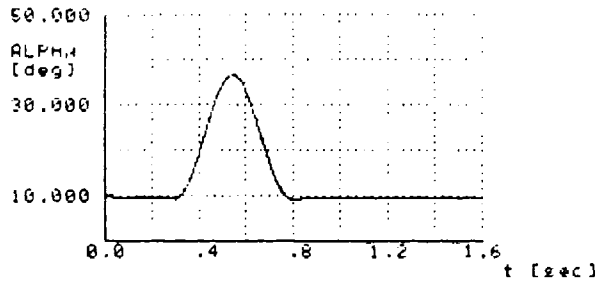




# (1-COS) INPUT

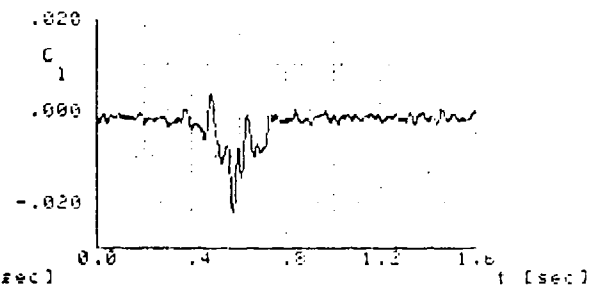
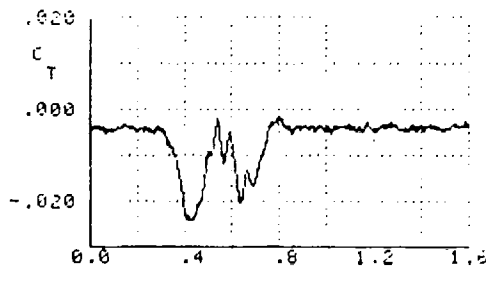
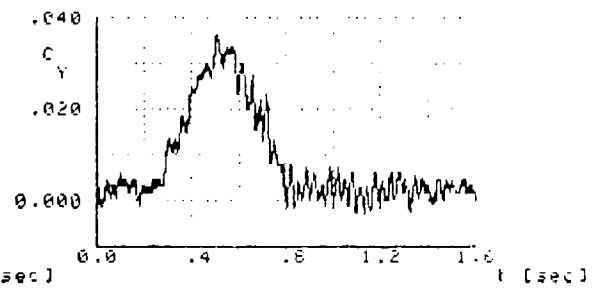
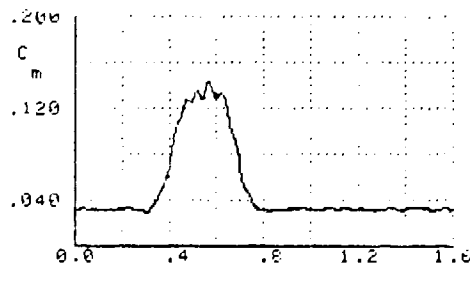
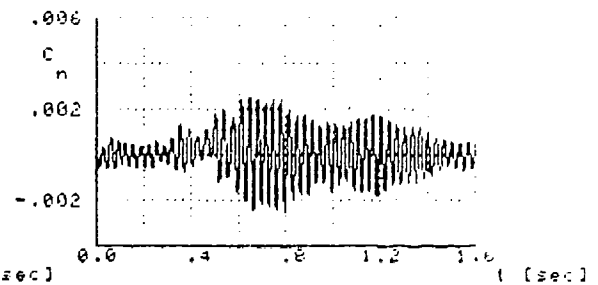
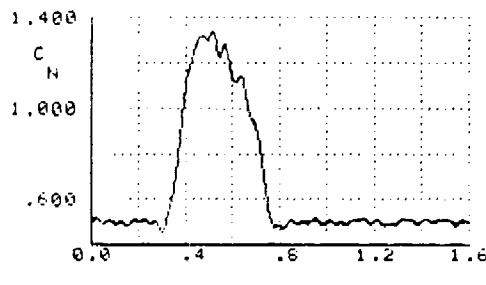
RUN = 3061  
 $\text{ALPHA}_a$  = 8 deg  
 $\text{DALPHA}_a$  = 24 deg  
 $T$  = 200 msec

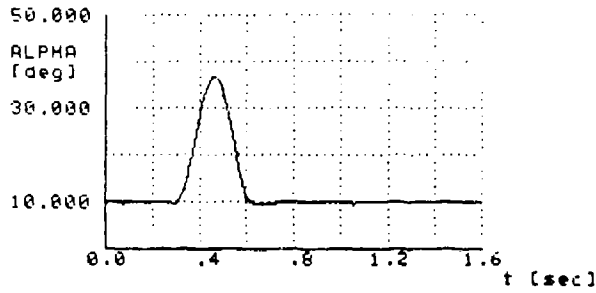




# (1-COS) INPUT

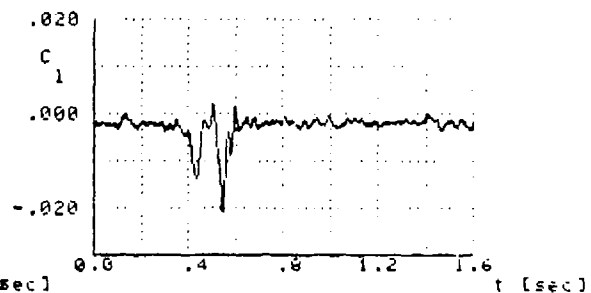
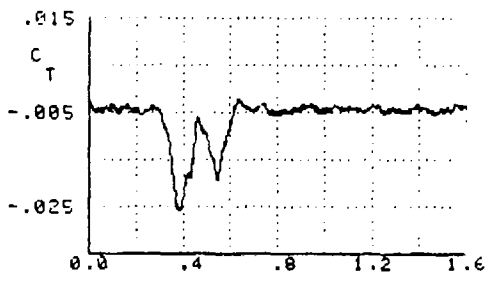
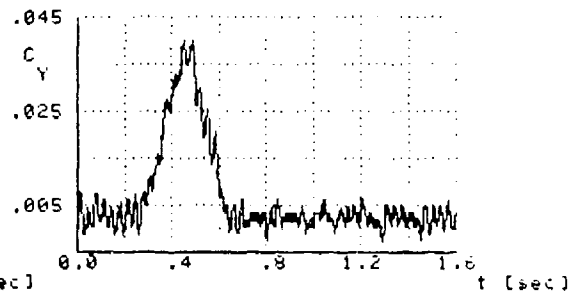
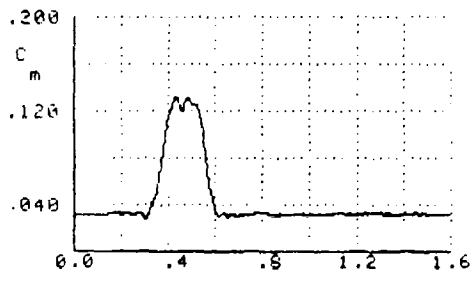
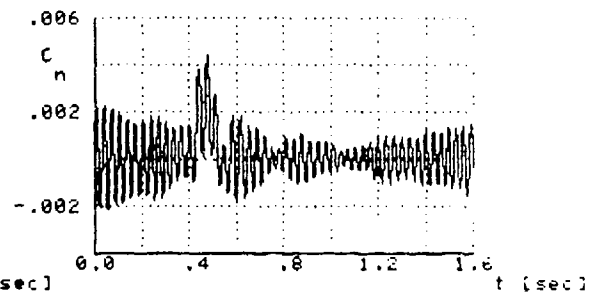
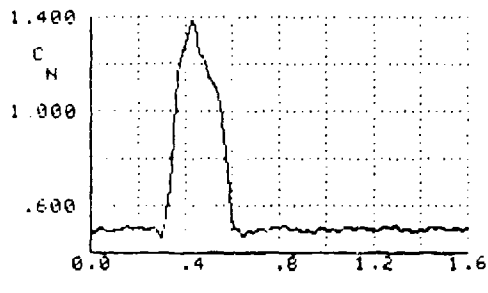
RUN = 3062  
 $\text{ALPHA}_a = 8 \text{ deg}$   
 $\text{DALPHA}_a = 32 \text{ deg}$   
 $T = 500 \text{ msec}$

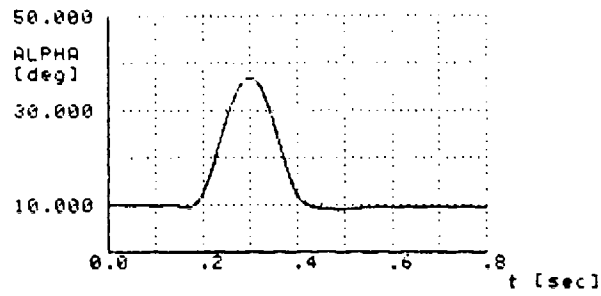




# (1-COS) INPUT

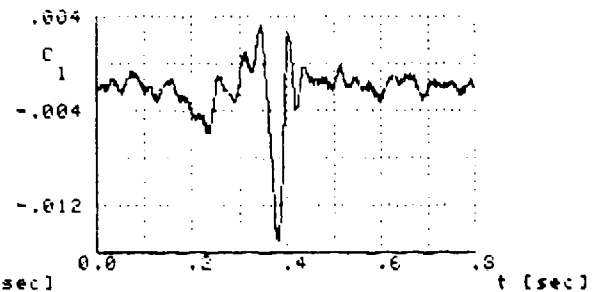
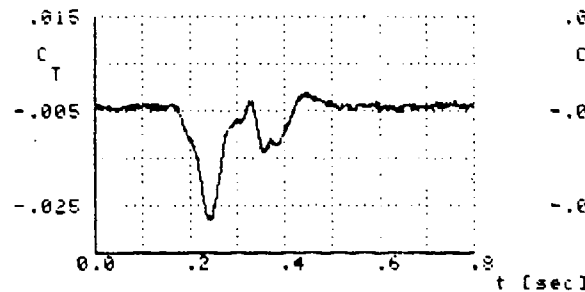
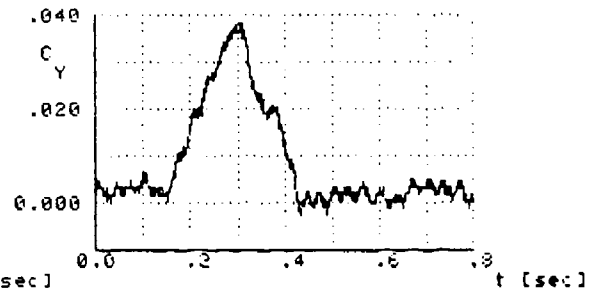
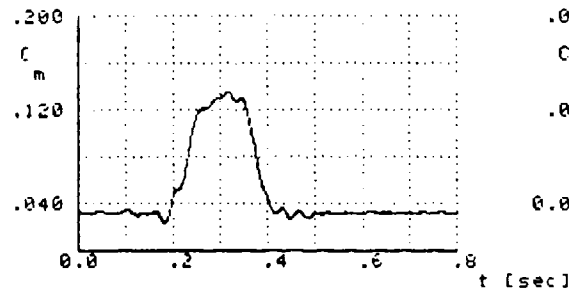
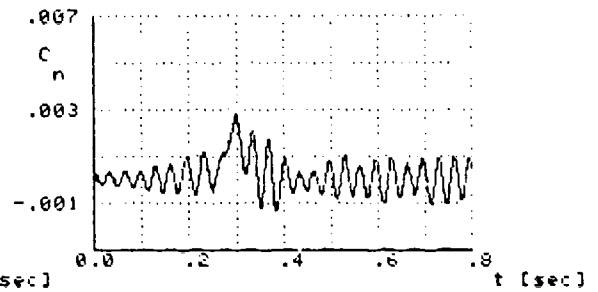
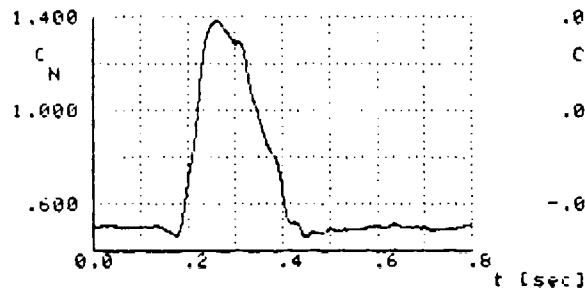
RUN = 3063  
ALPHA<sub>A</sub> = 8 deg  
DALPHA<sub>A</sub> = 32 deg  
T = 333 msec

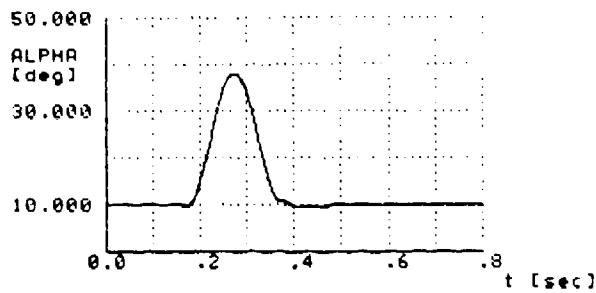




# (1-COS) INPUT

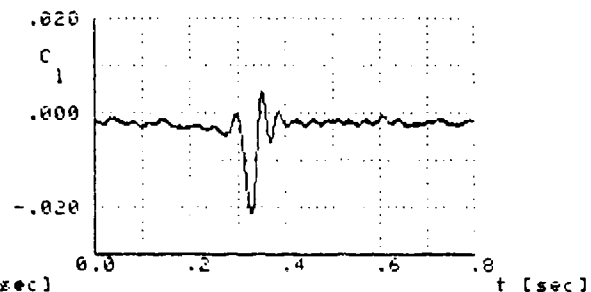
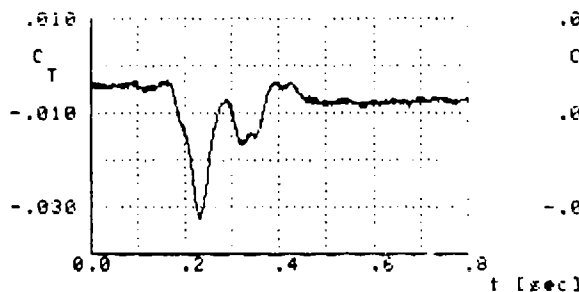
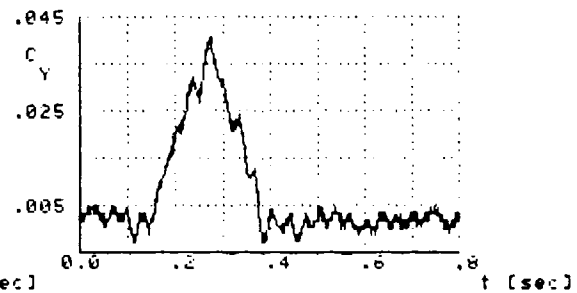
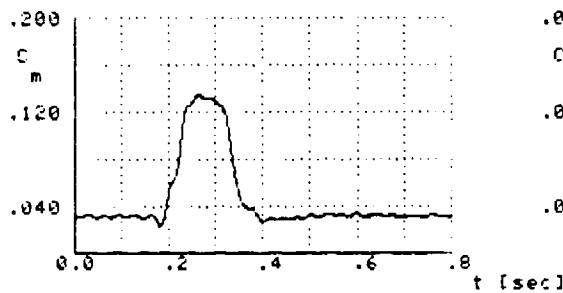
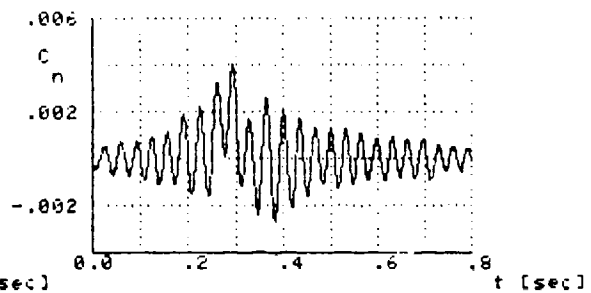
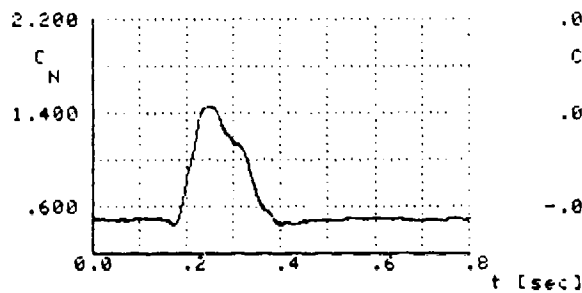
RUN = 3864  
 ALPHA<sub>a</sub> = 8 deg  
 DRALPHA<sub>a</sub> = 32 deg  
 T = 250 msec



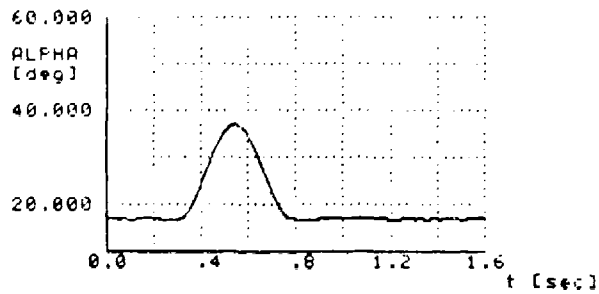


# (1-COS) INPUT

RUN = 3065  
 ALPHA = 8 deg  
 DALPHA = 32 deg  
 T = 200 msec

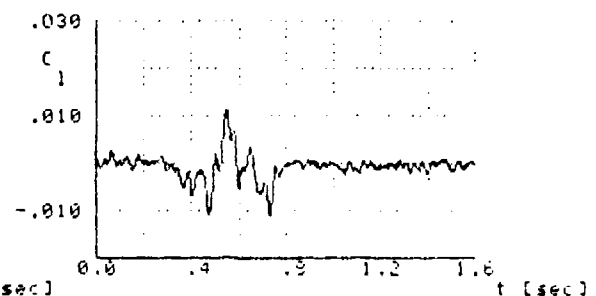
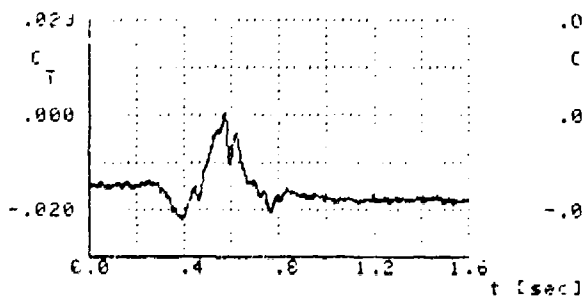
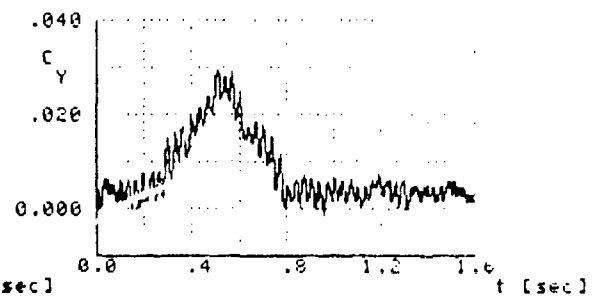
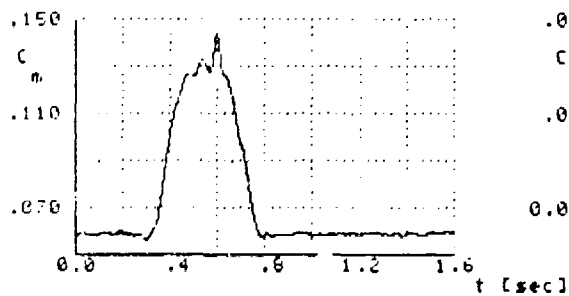
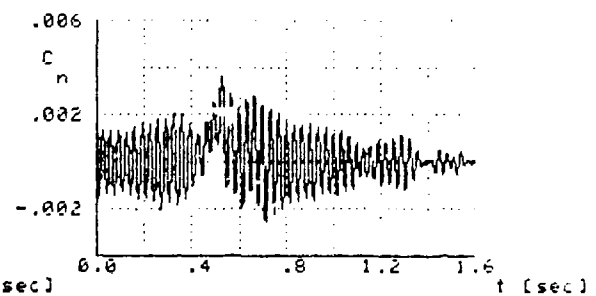
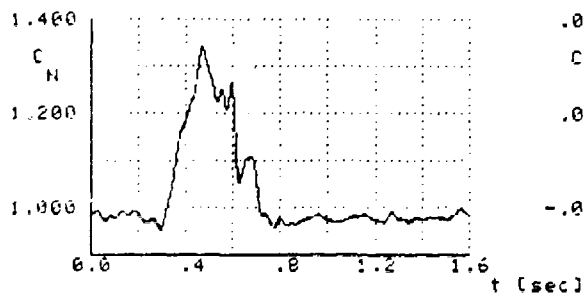


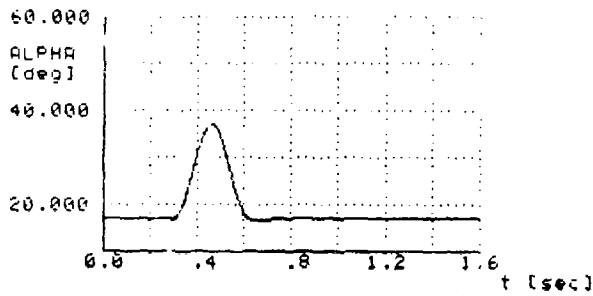




# (1-COS) INPUT

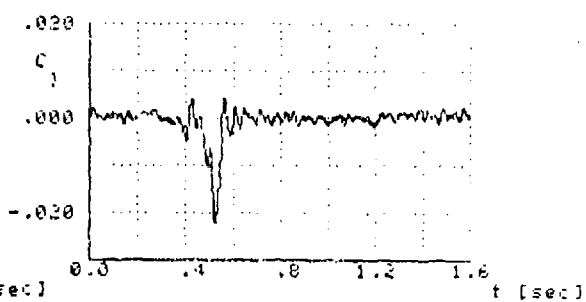
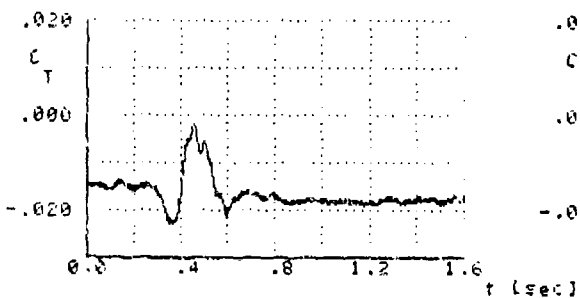
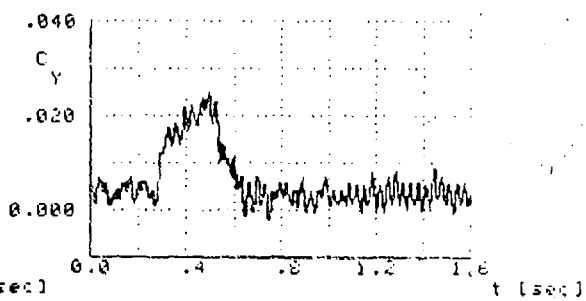
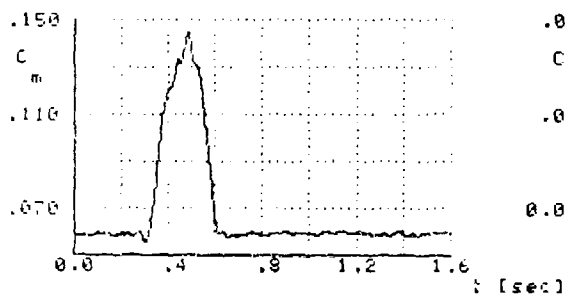
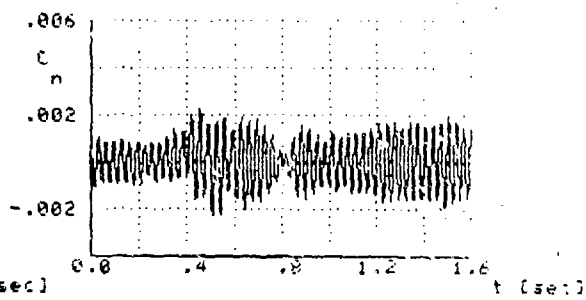
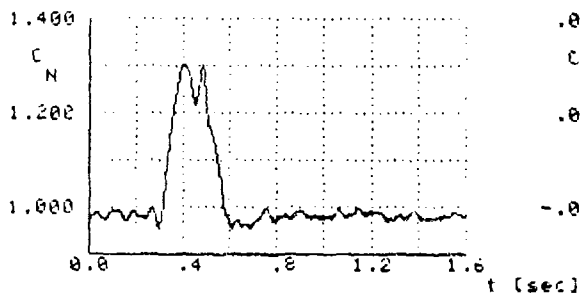
RUN = 3066  
ALPHA<sub>a</sub> = 16 deg  
DALPHA<sub>a</sub> = 24 deg  
T = 500 msec

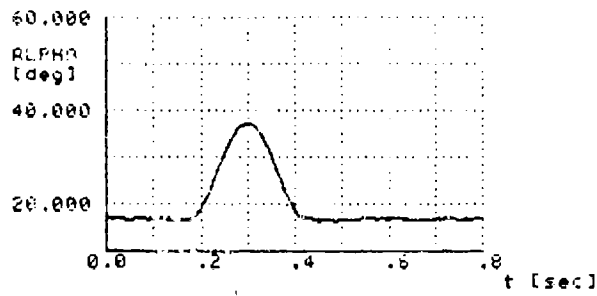




# (1-COS) INPUT

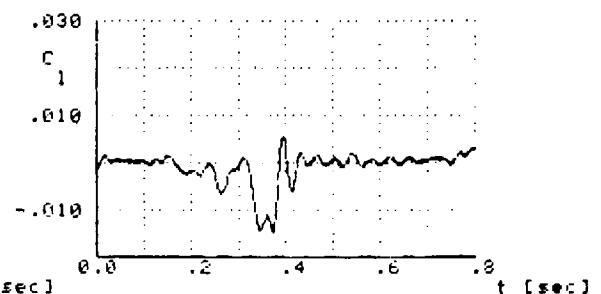
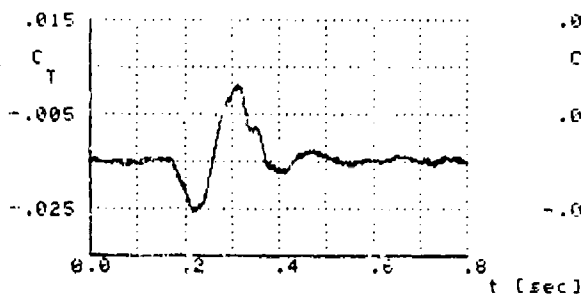
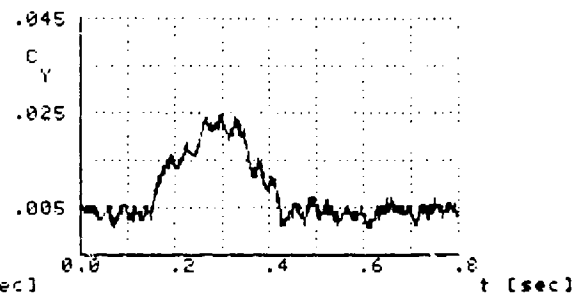
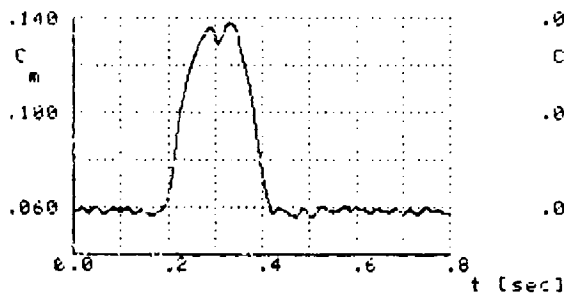
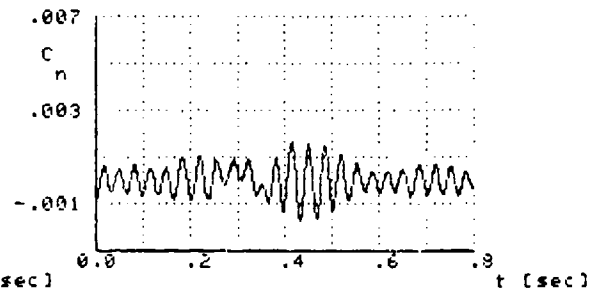
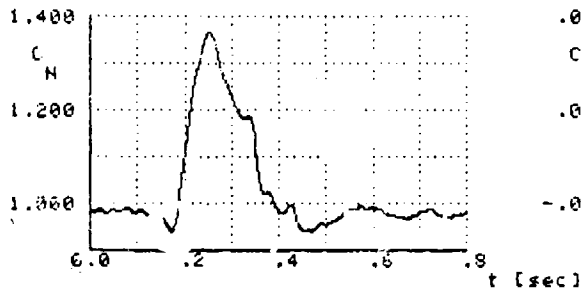
RUN = 2067  
 ALPHA<sub>a</sub> = 16 deg  
 D<sub>1</sub>ALPHA<sub>a</sub> = 24 deg  
 T = 333 msec

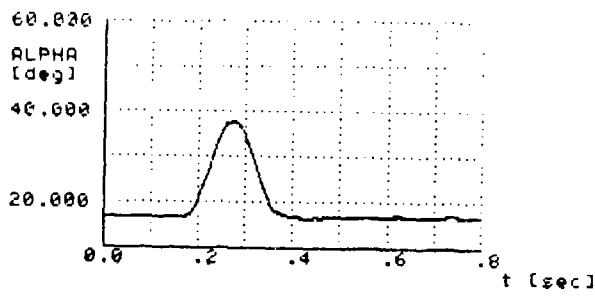




# (1-COS INPUT

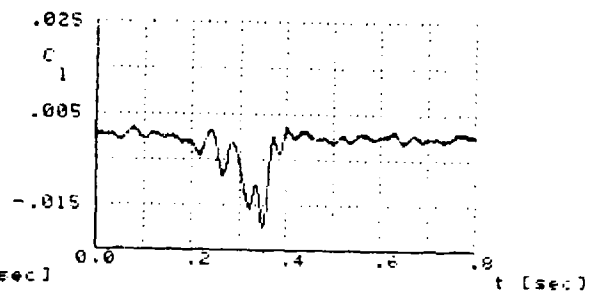
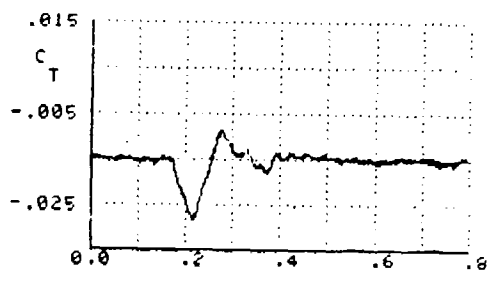
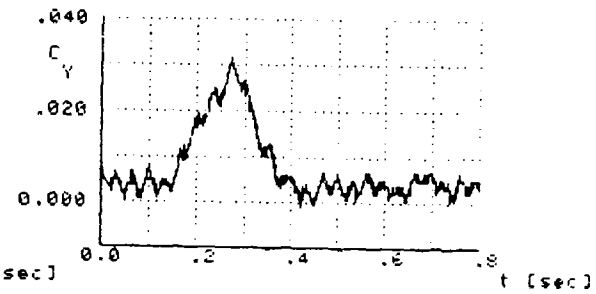
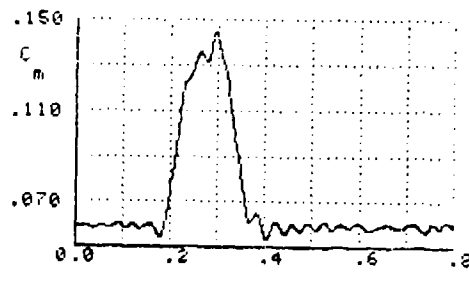
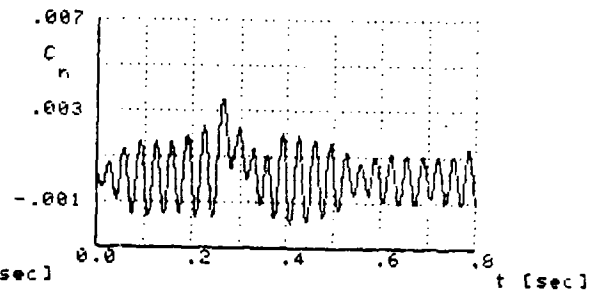
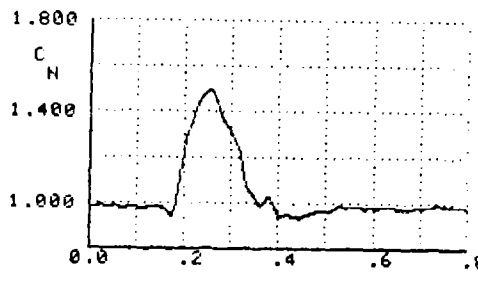
RUN = 1  
 $\text{ALPHA}_0 = 16$  deg  
 $\text{DALPHA}_0 = 24$  deg  
 $T = 250$  msec

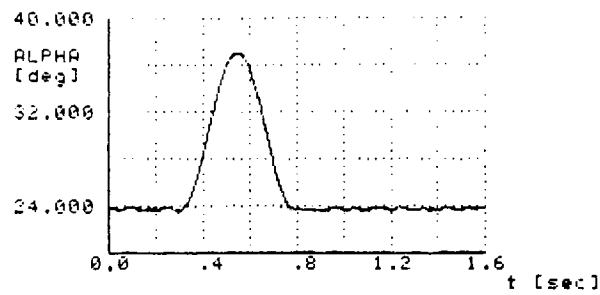




# (1-COS INPUT

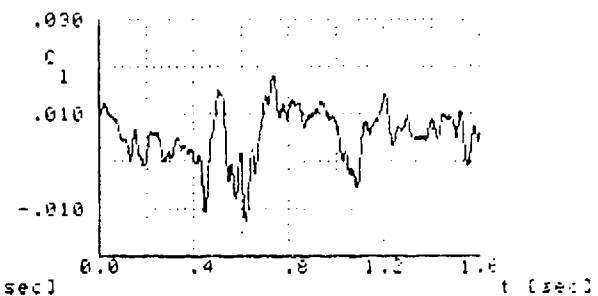
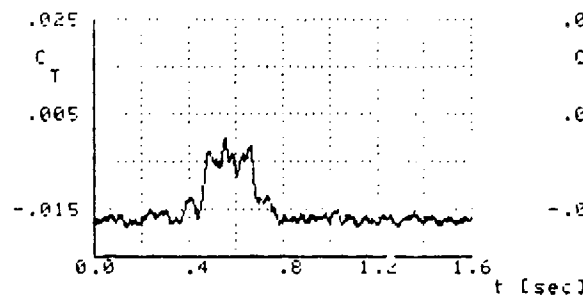
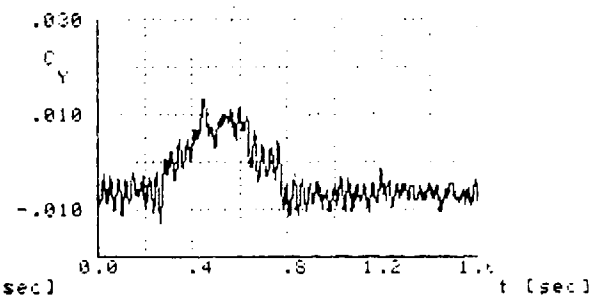
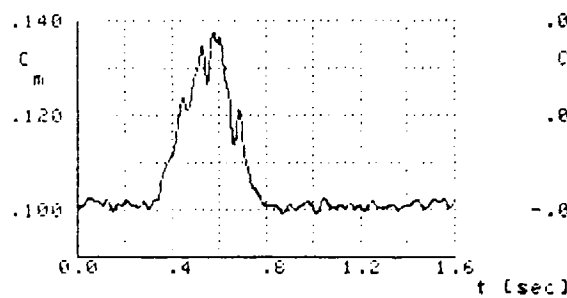
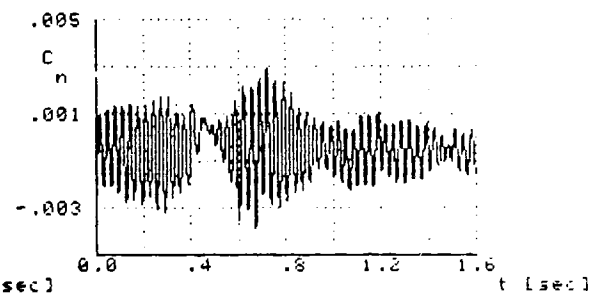
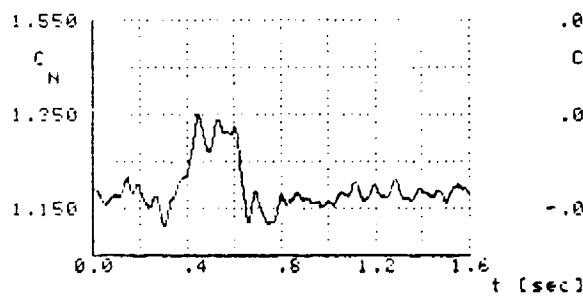
RUN = 3069  
ALPHA<sub>a</sub> = 16 deg  
DALPHA<sub>a</sub> = 24 deg  
T = 200 msec

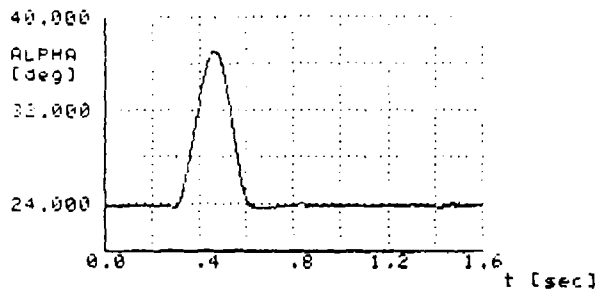




# (1-COS) INPUT

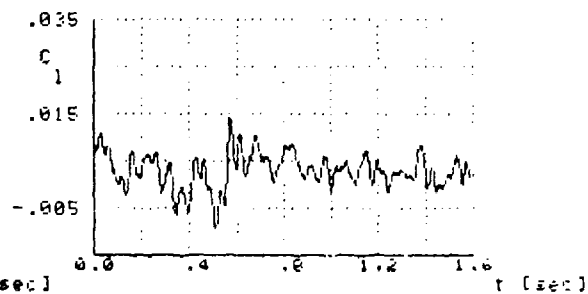
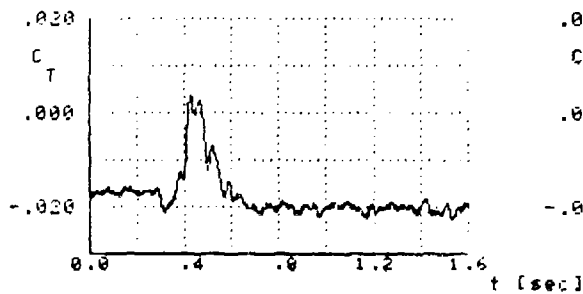
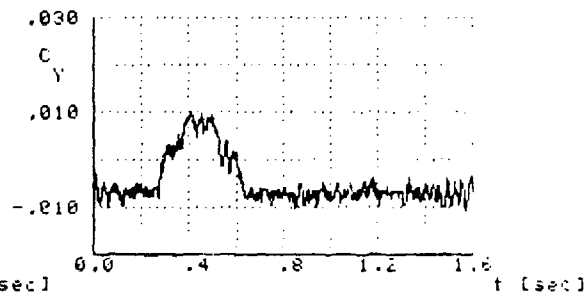
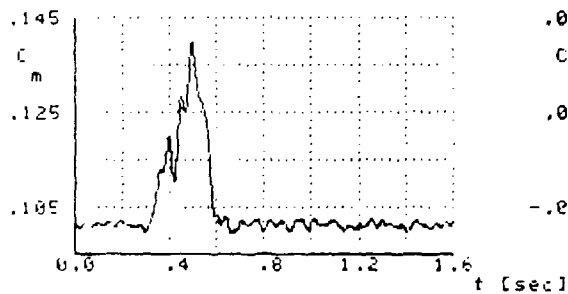
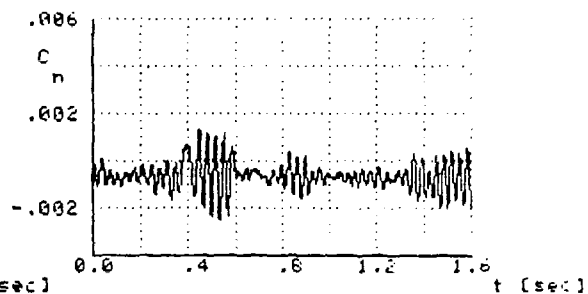
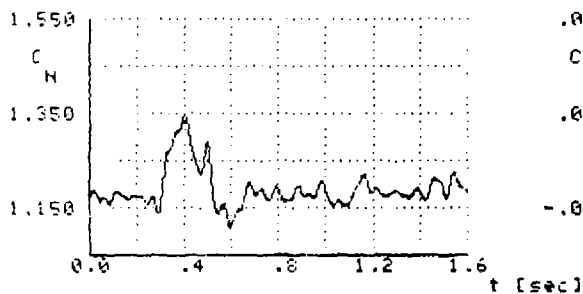
RUN = 3070  
 $\text{ALPHA}_a = 24 \text{ deg}$   
 $\text{DALPHA}_a = 16 \text{ deg}$   
 $T = 500 \text{ msec}$

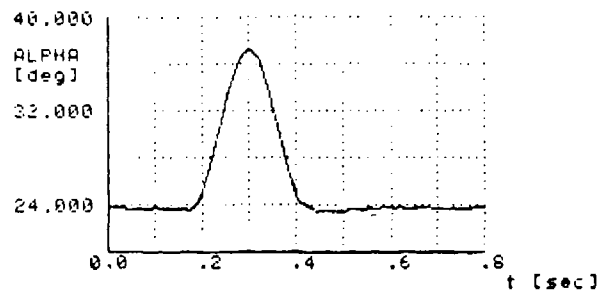




# (1-COS) INPUT

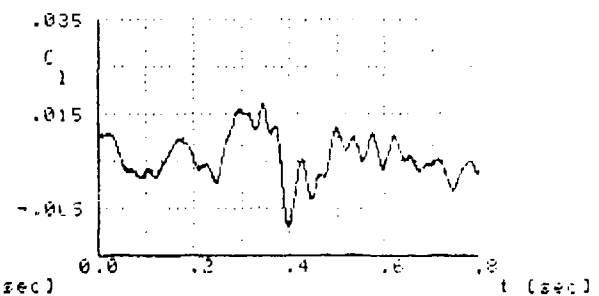
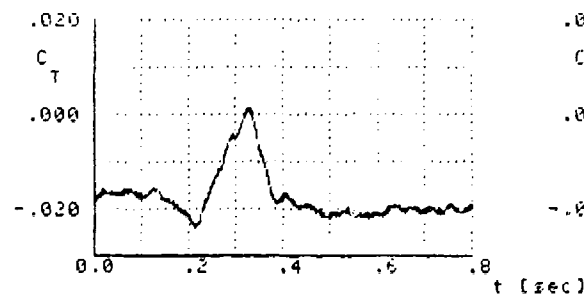
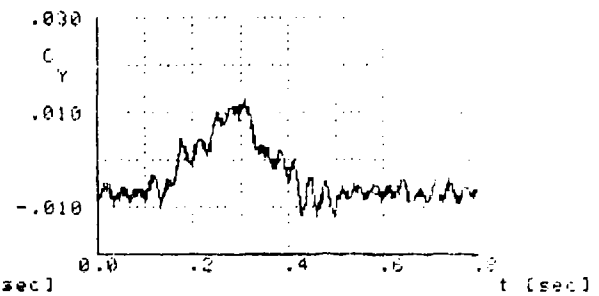
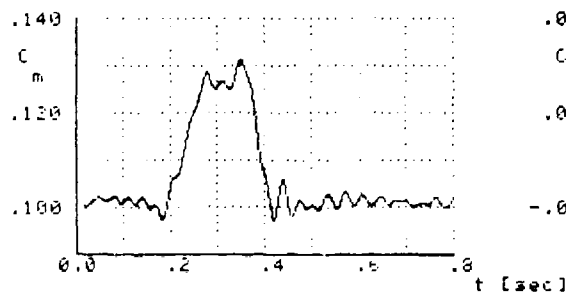
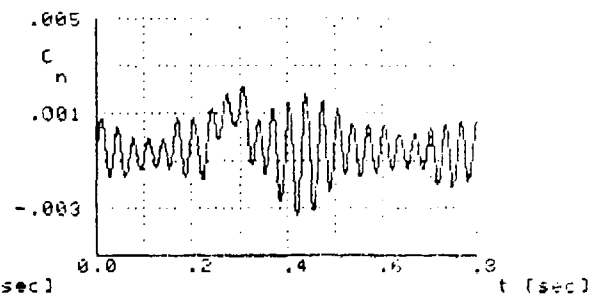
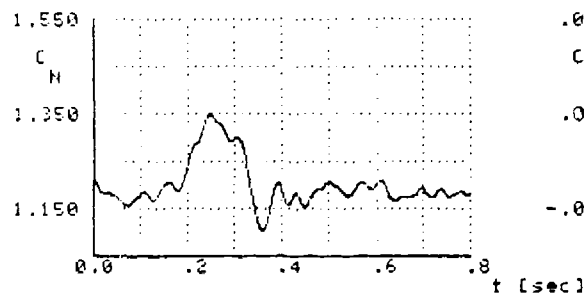
RUN = 3071  
 ALPHA<sub>a</sub> = 24 deg  
 DIALPHA<sub>a</sub> = 16 deg  
 T = 333 msec

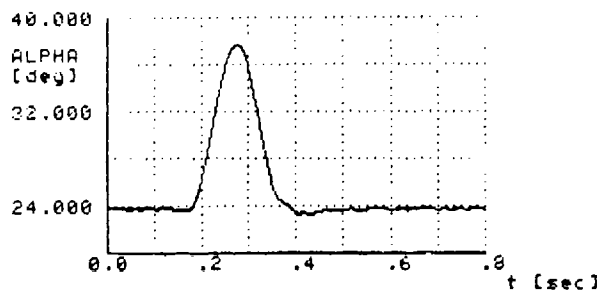




# (1-COS) INPUT

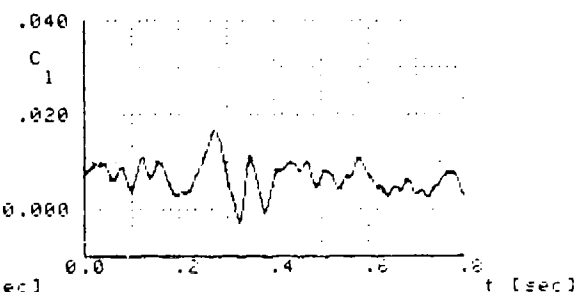
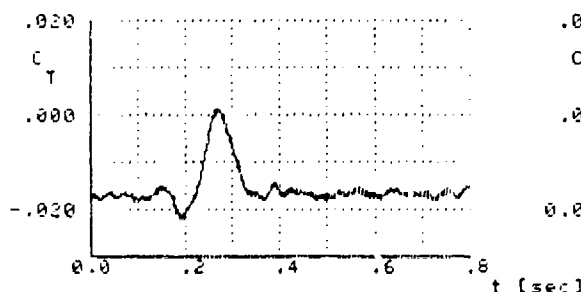
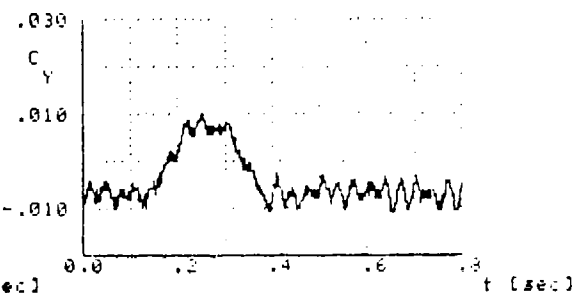
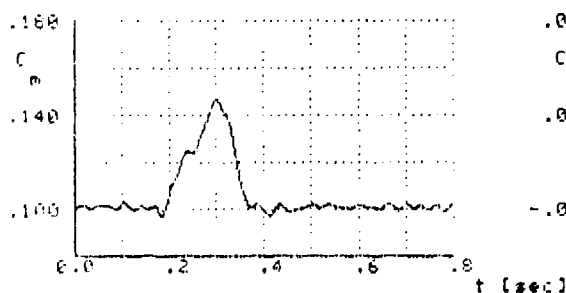
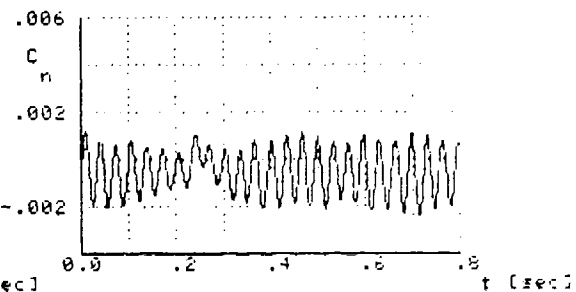
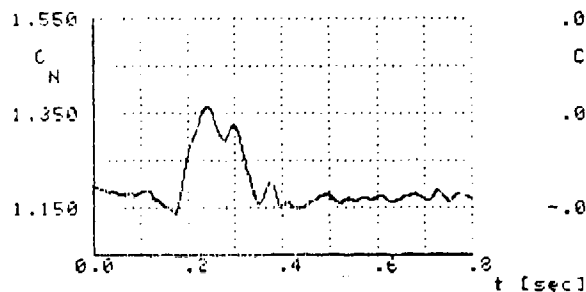
RUN = 3072  
 $\text{ALPHA}_a$  = 24 deg  
 $\text{DALPHA}_a$  = 16 deg  
 $T$  = 250 msec



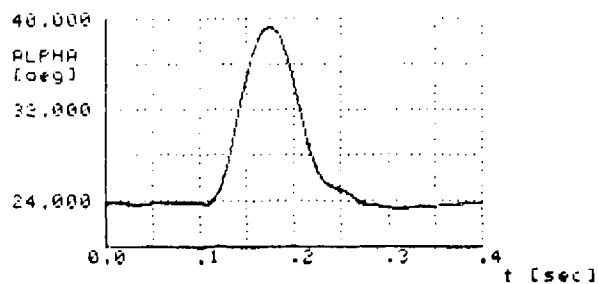


# (1-COS) INPUT

RUN = 3073  
 ALPHA<sub>a</sub> = 24 deg  
 DALPHA<sub>a</sub> = 16 deg  
 T = 200 msec

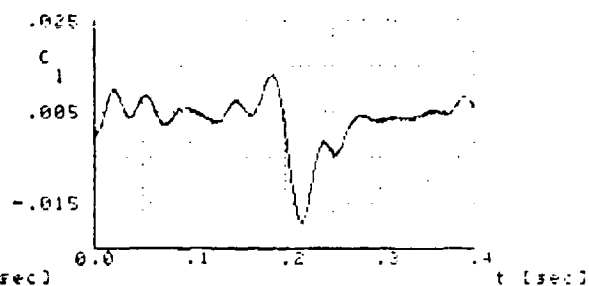
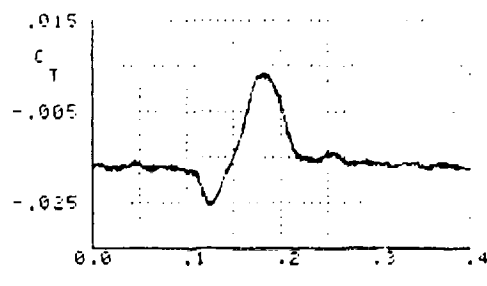
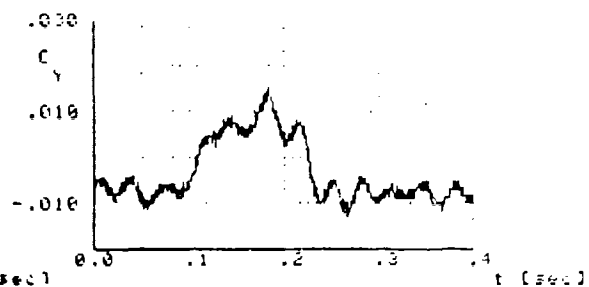
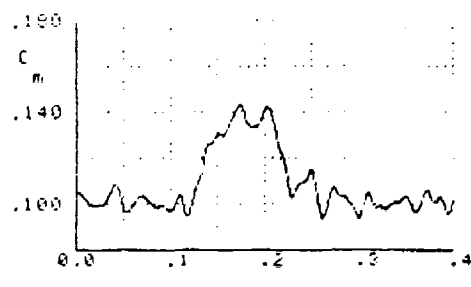
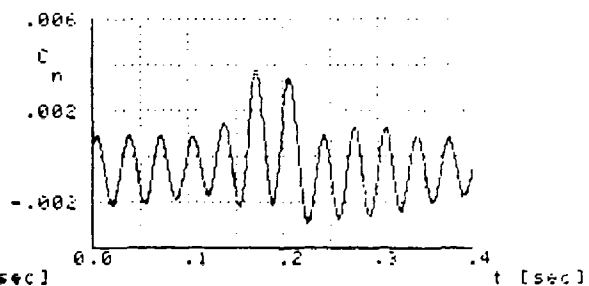
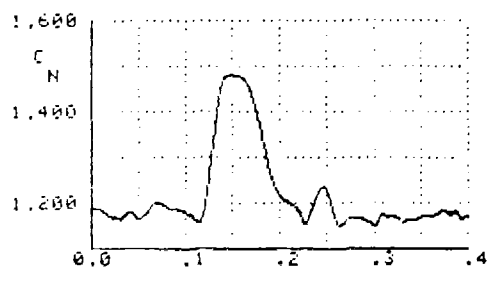


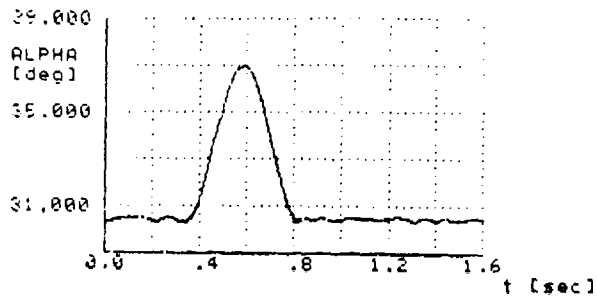




# (1-COS) INPUT

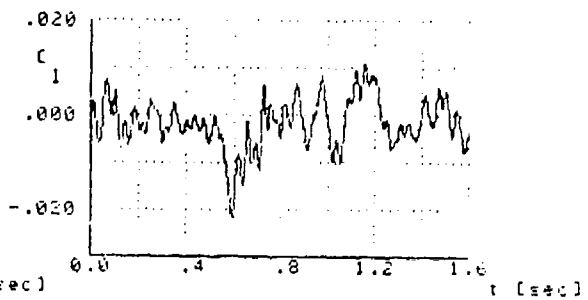
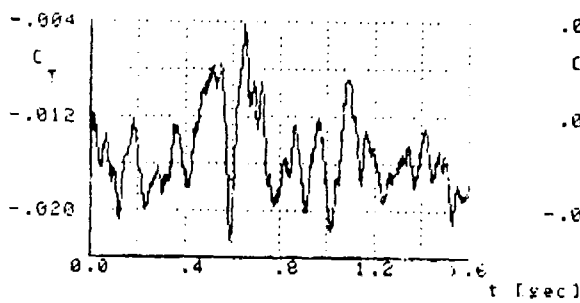
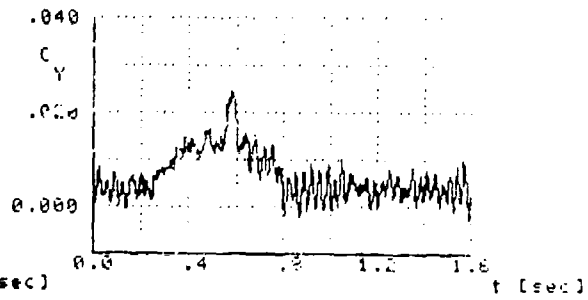
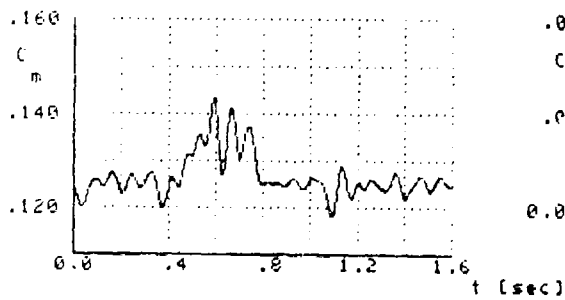
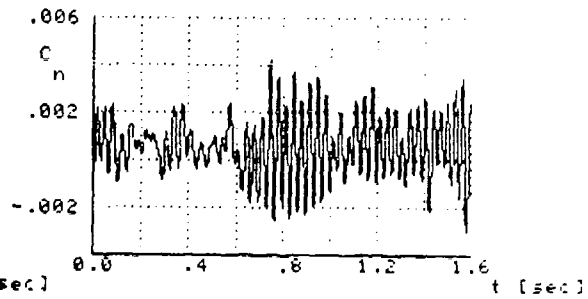
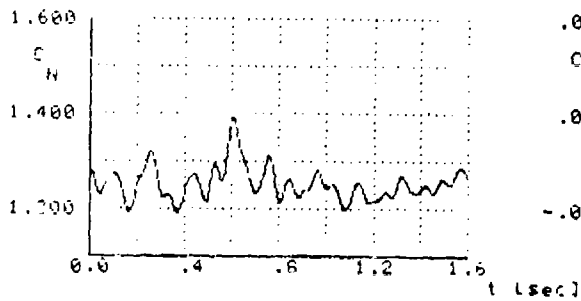
PUN = 3074  
 $\text{ALPHA}_a = 24 \text{ deg}$   
 $\text{DALPHA}_a = 16 \text{ deg}$   
 $T = 125 \text{ msec}$

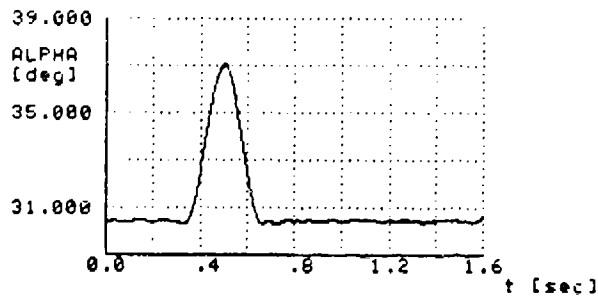




# (1-COS) INPUT

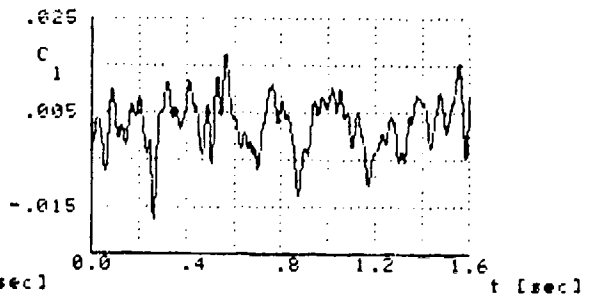
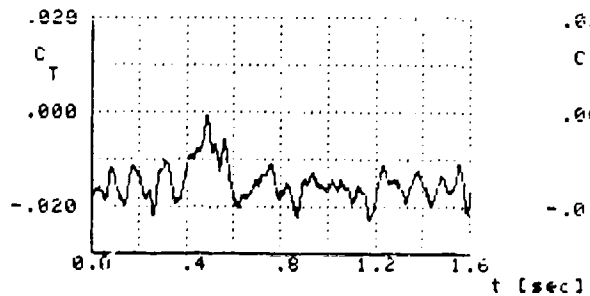
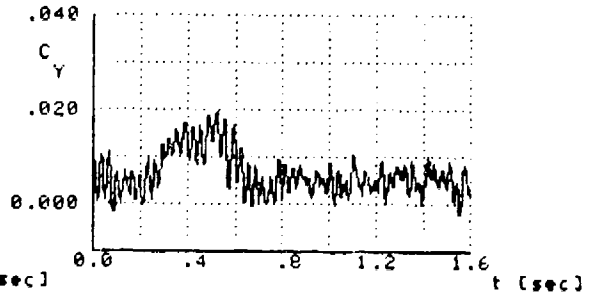
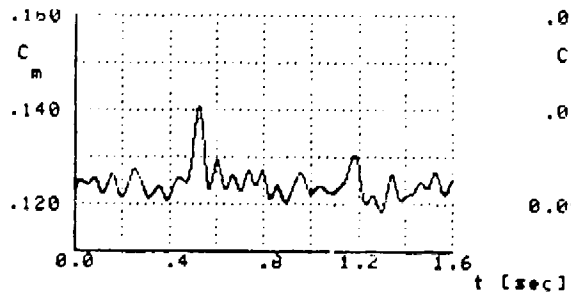
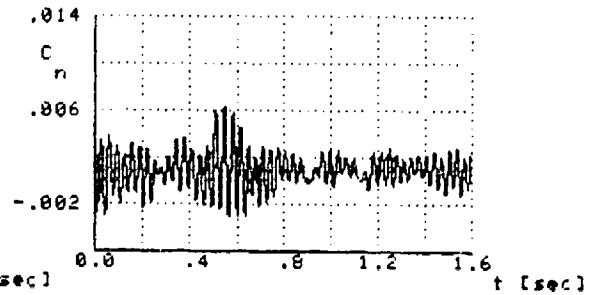
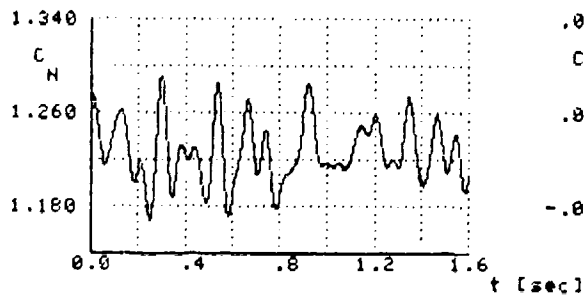
PUN = 3075  
ALPHA<sub>0</sub> = 32 deg  
DALPHA<sub>0</sub> = 8 deg  
T = 500 msec

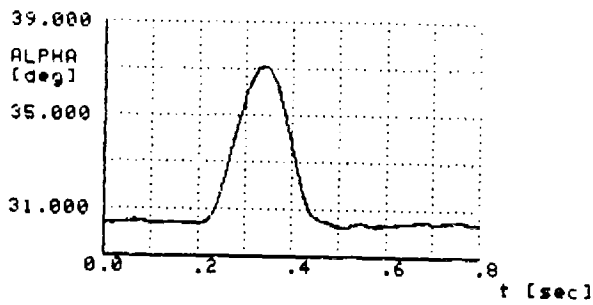




# (1-COS) INPUT

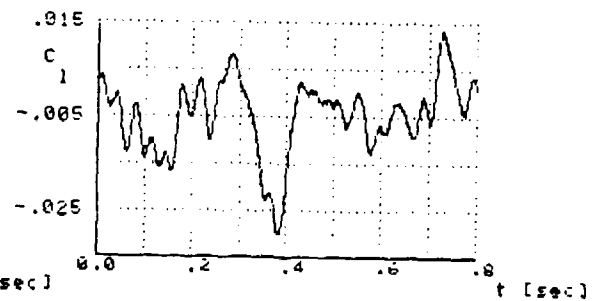
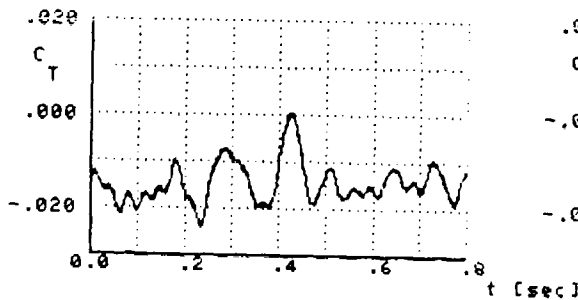
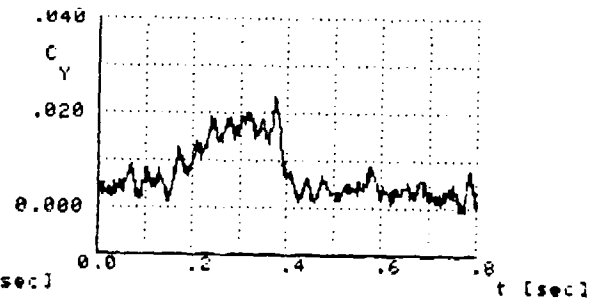
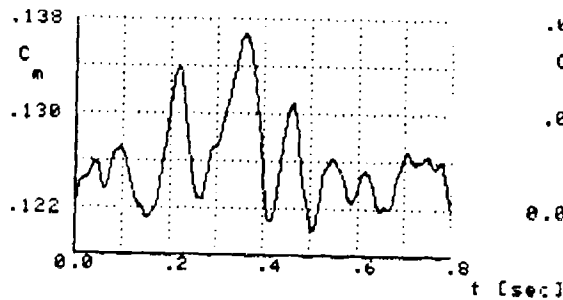
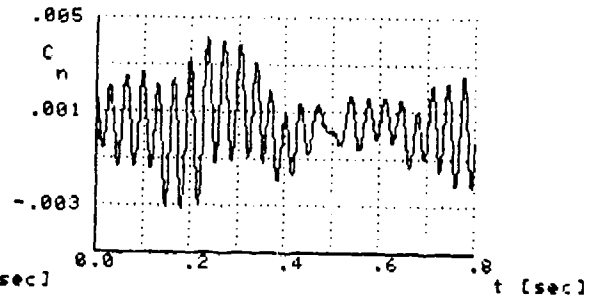
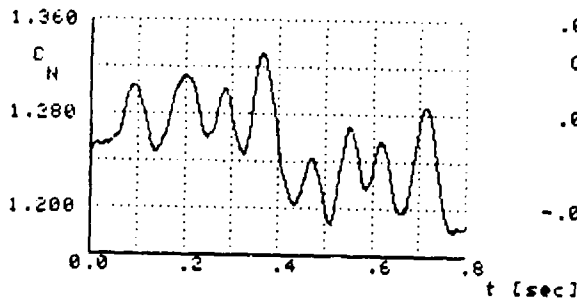
RUN = 3076  
ALPHA<sub>A</sub> = 32 deg  
DALPHA<sub>A</sub> = 8 deg  
T = 333 msec

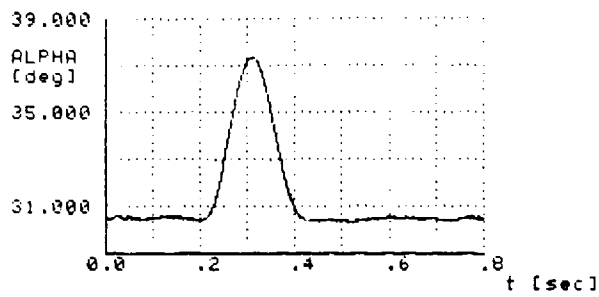




# (1-COS) INPUT

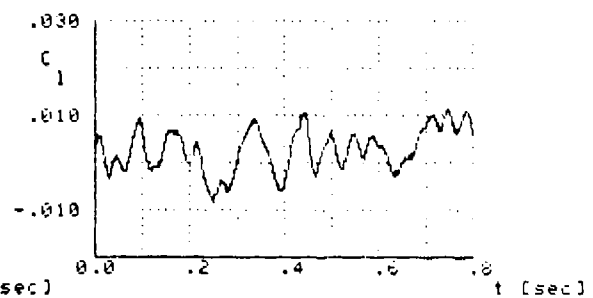
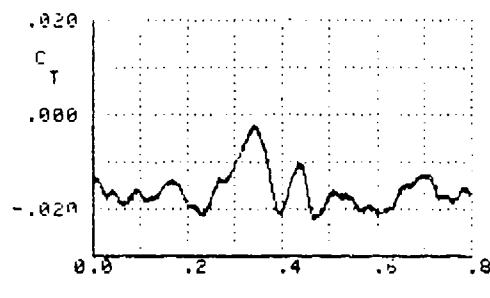
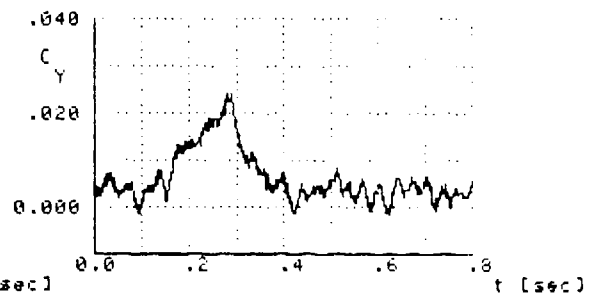
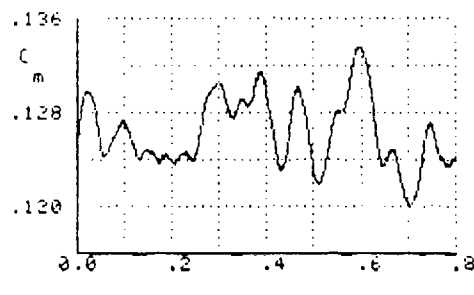
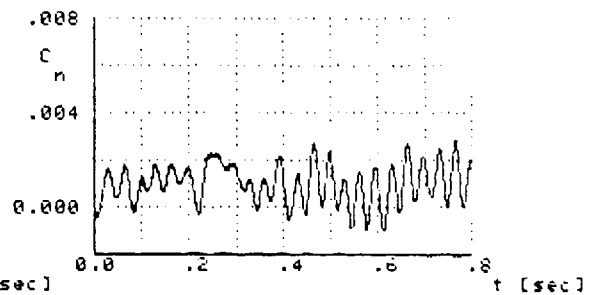
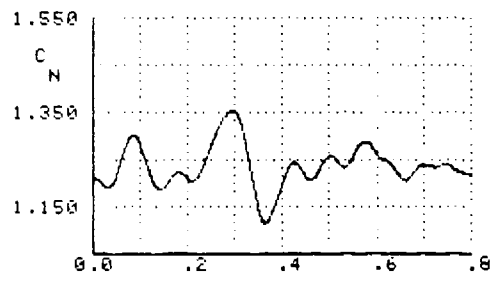
RUN = 3077  
ALPHA<sub>a</sub> = 32 deg  
DALPHA<sub>a</sub> = 8 deg  
T = 250 msec

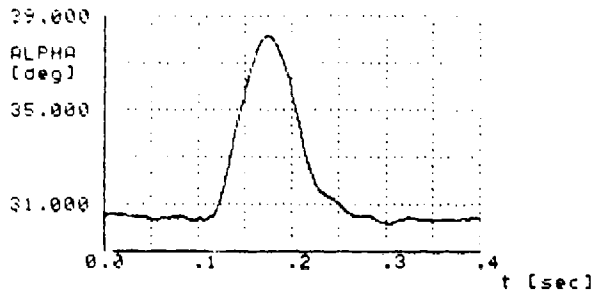




# (1-COS) INPUT

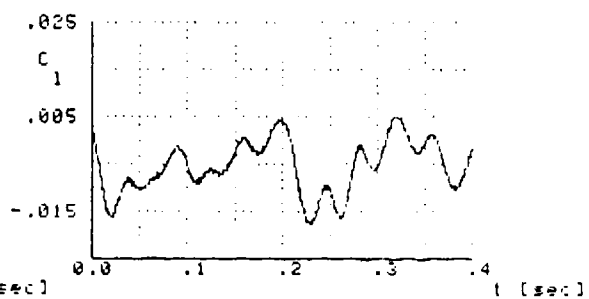
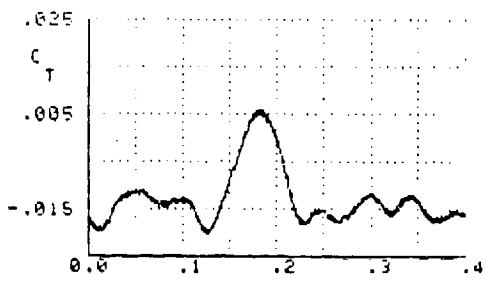
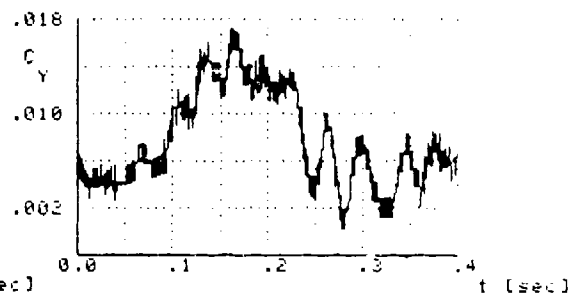
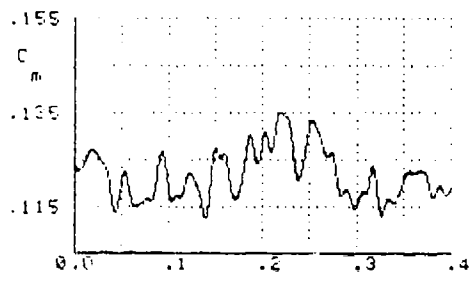
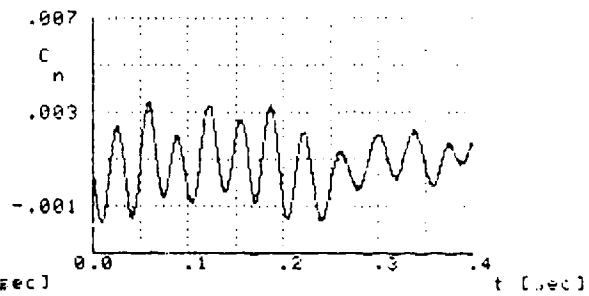
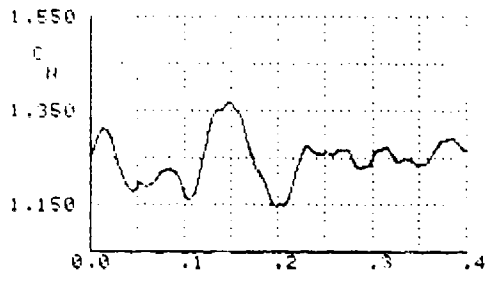
RUN = 3070  
 ALPHA<sub>a</sub> = 32 deg  
 DALPHA<sub>a</sub> = 6 deg  
 T = 200 msec

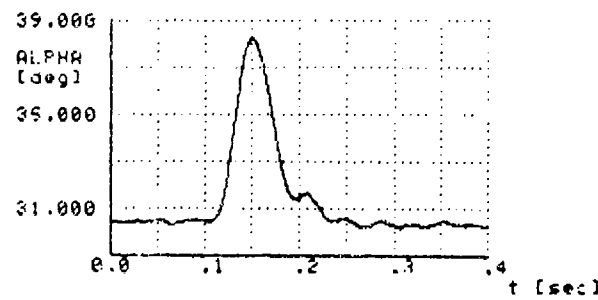




# (1-COS) INPUT

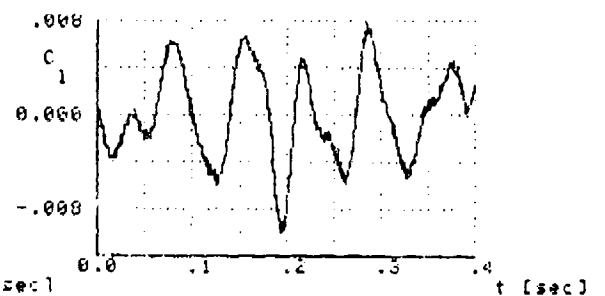
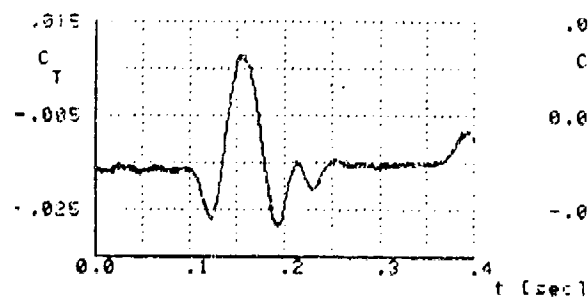
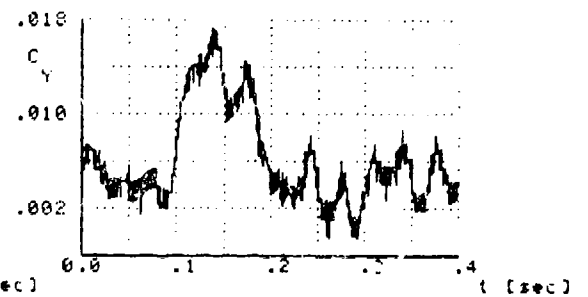
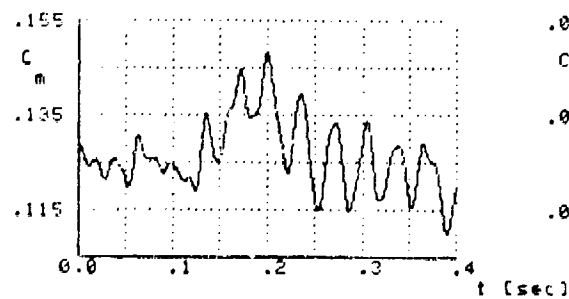
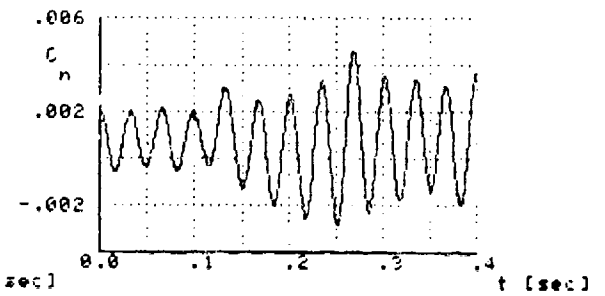
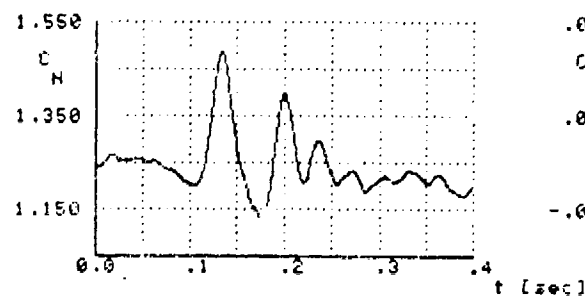
RUN = 3079  
 ALPHA<sub>a</sub> = 32 deg  
 D<sub>ALPHA</sub> = 6 deg  
 T = 125 msec

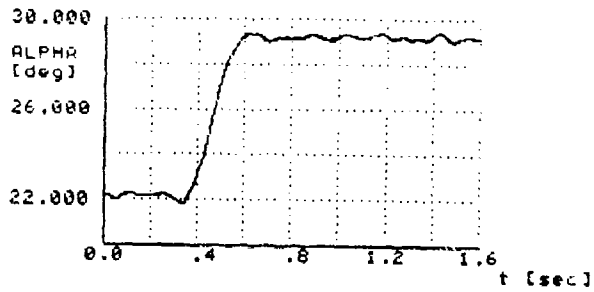




# (1-COS) INPUT

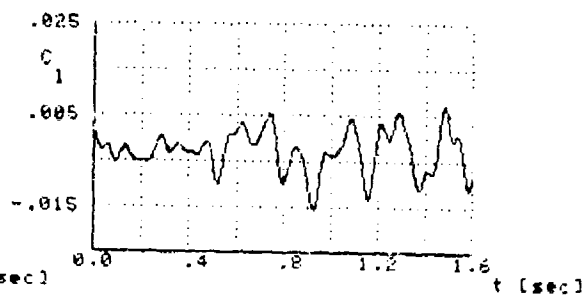
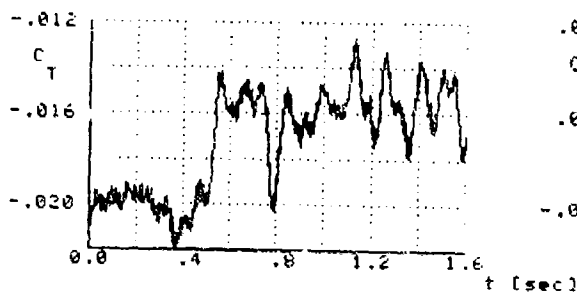
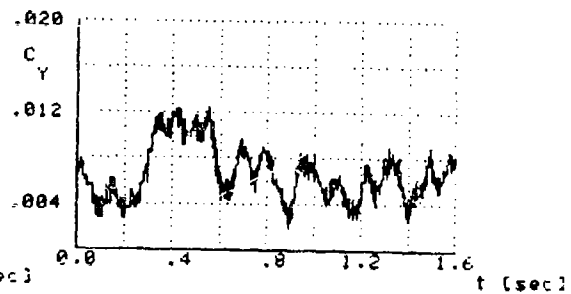
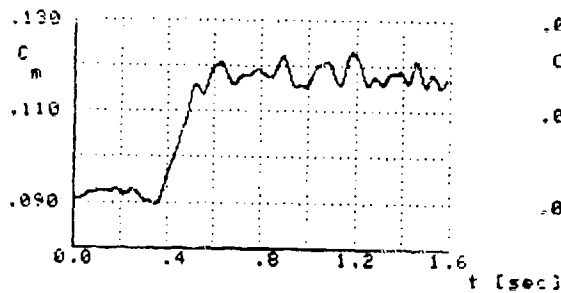
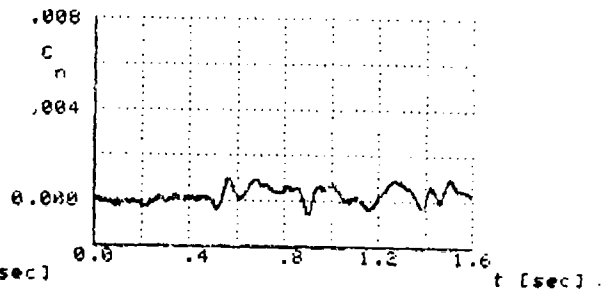
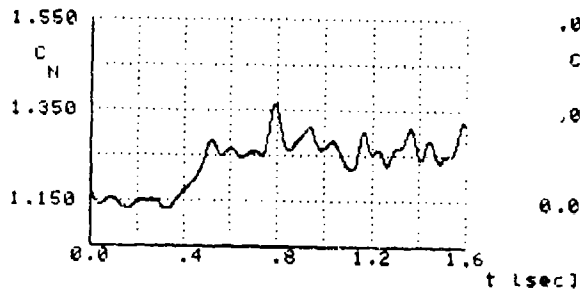
RUN = 3080  
 ALPHA<sub>a</sub> = 32 deg  
 DIALPHA<sub>a</sub> = 8 deg  
 T = 83 msec



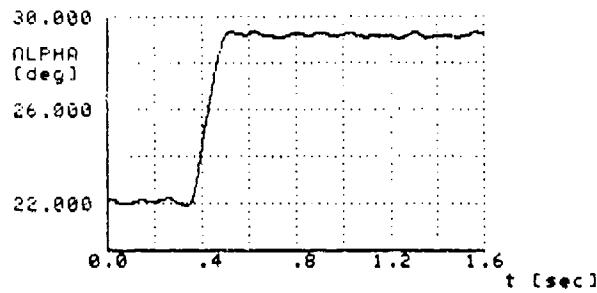


# HALF (1-COS) INPUT NOSE UP

RUN = 3013  
 $\text{ALPHA}_0 = 22 \text{ deg}$   
 $\text{DALPHA}_0 = 8 \text{ deg}$   
 $T/2 = 250 \text{ msec}$

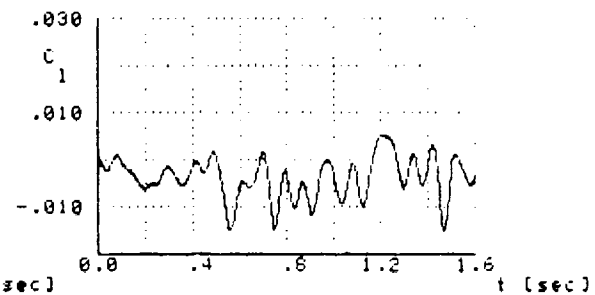
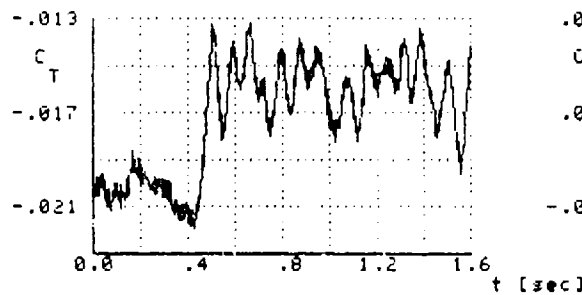
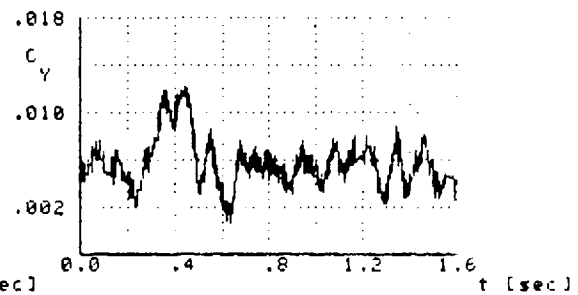
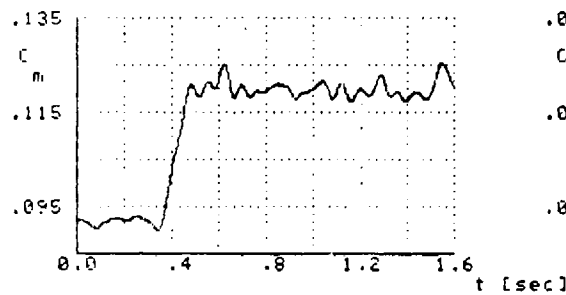
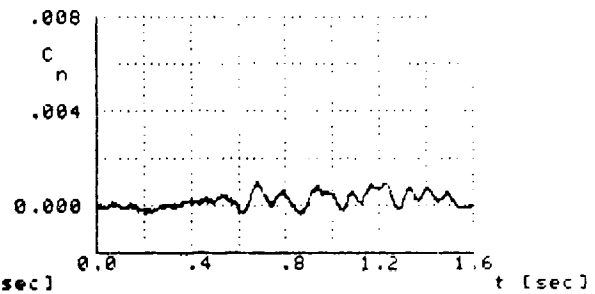
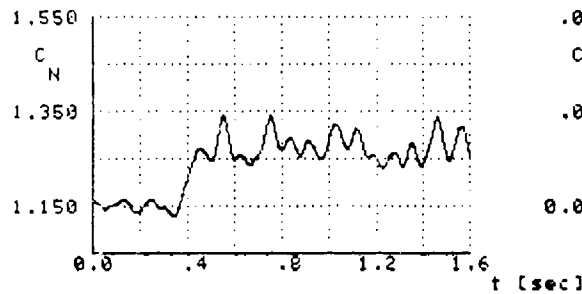


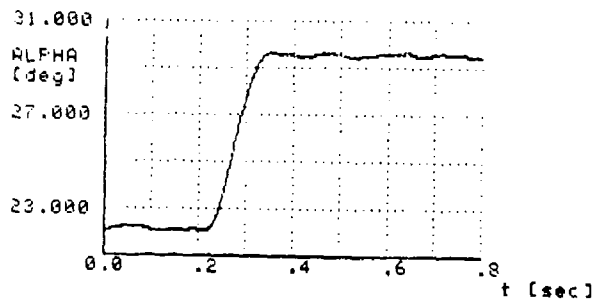




HALF (1-COS) INPUT  
NOSE UP

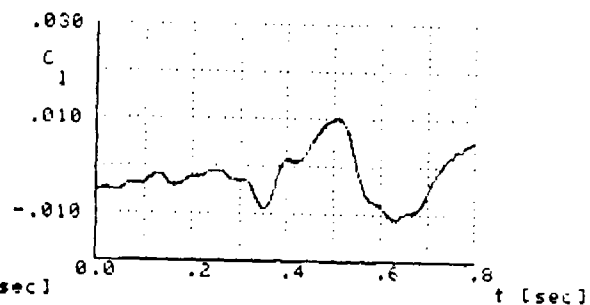
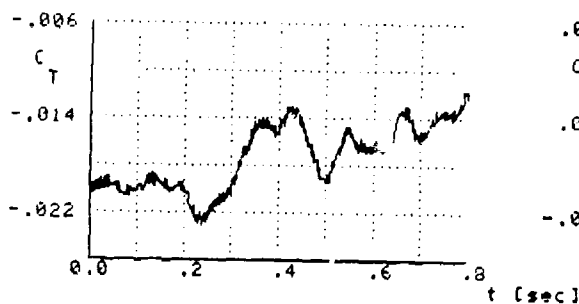
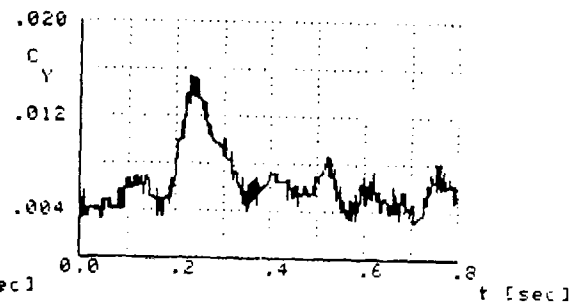
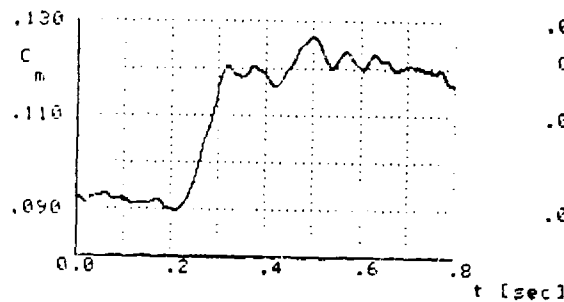
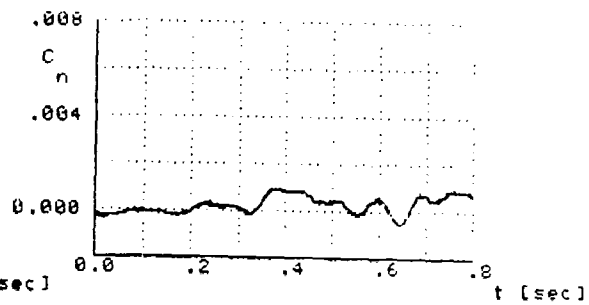
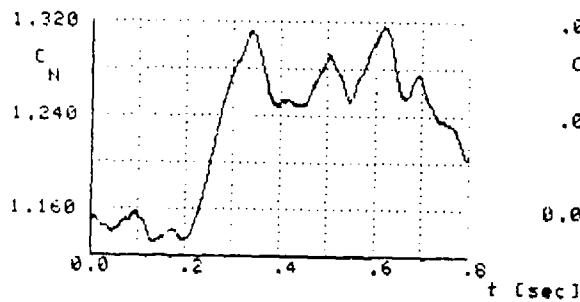
RUN = 3014  
ALPHA<sub>a</sub> = 22 deg  
DALPHA<sub>a</sub> = 8 deg  
T/2 = 167 msec

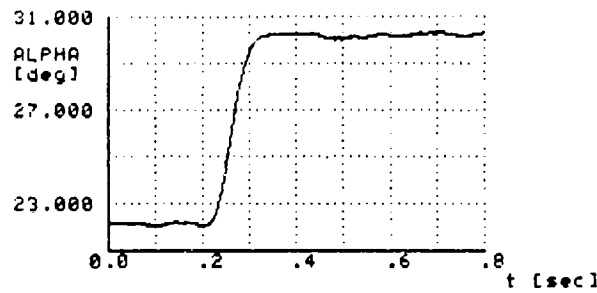




HALF (1-COS) INPUT  
NOSE UP

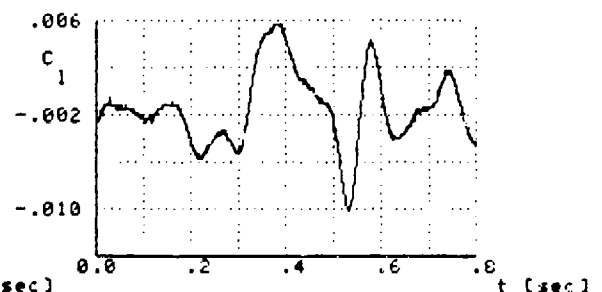
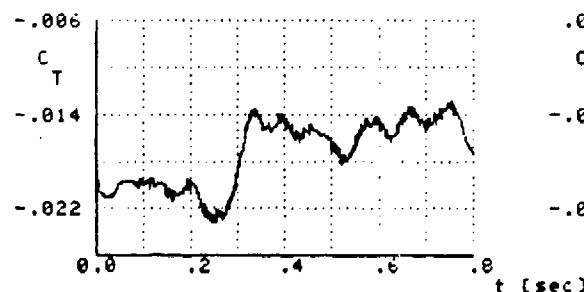
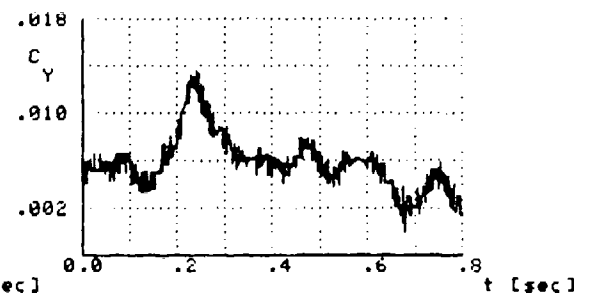
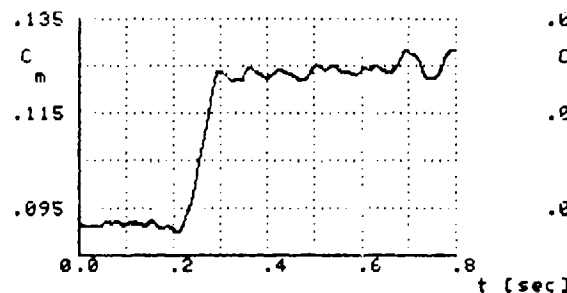
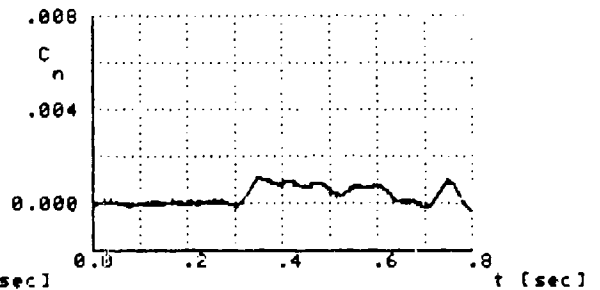
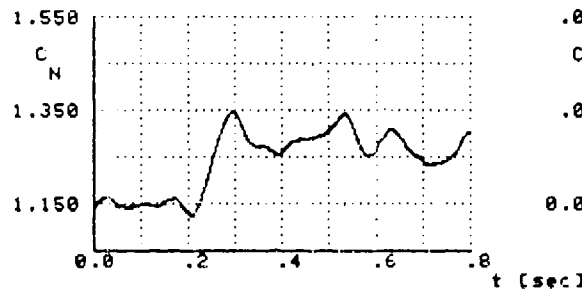
RUN = 3015  
ALPHA<sub>0</sub> = 22 deg  
DALPHA<sub>0</sub> = 6 deg  
T/2 = 125 msec

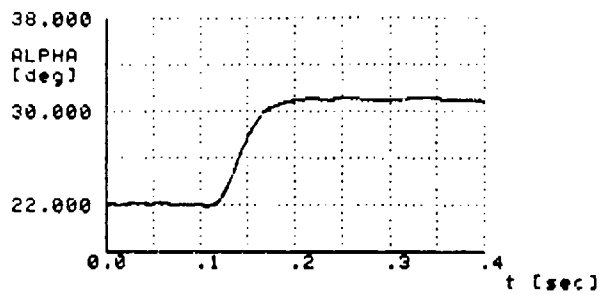




# HALF (1-COS) INPUT NOSE UP

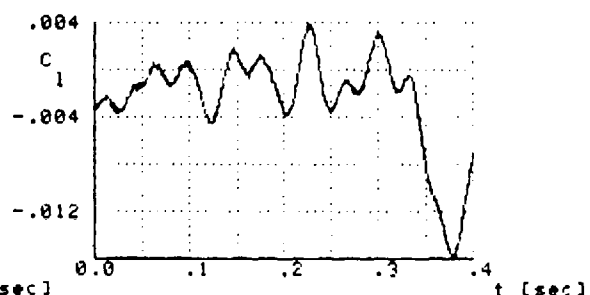
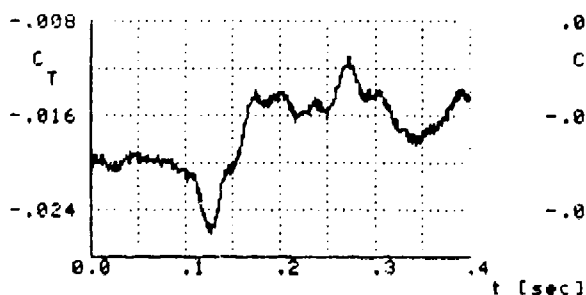
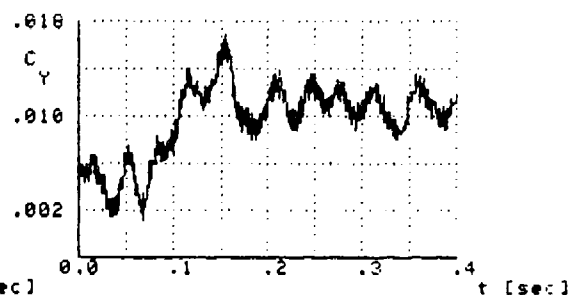
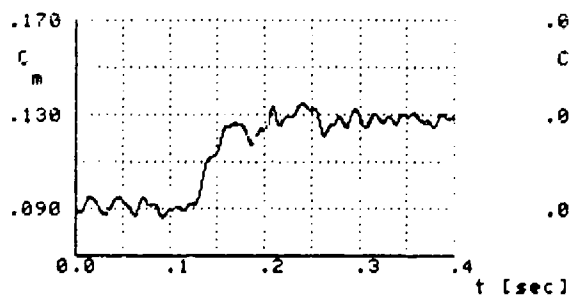
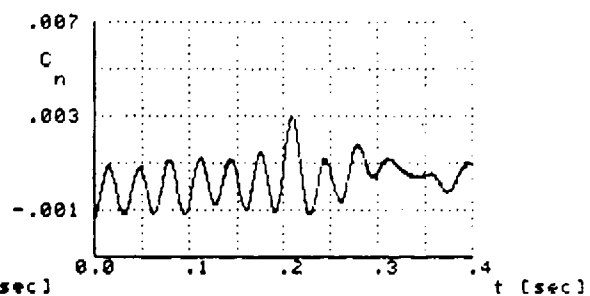
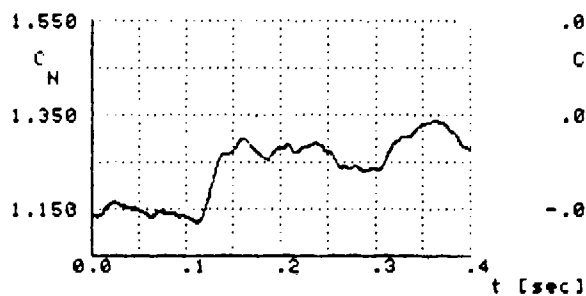
RUN = 3016  
ALPHA<sub>0</sub> = 22 deg  
ΔALPHA<sub>0</sub> = 8 deg  
T/2 = 100 msec

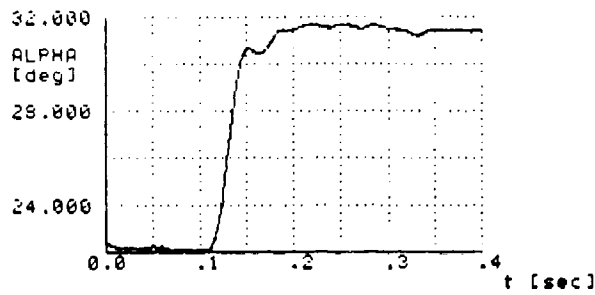




# HALF (1-COS) INPUT NOSE UP

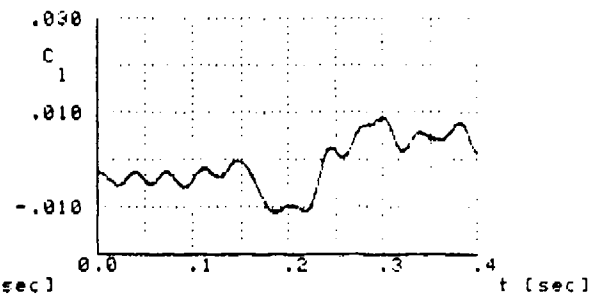
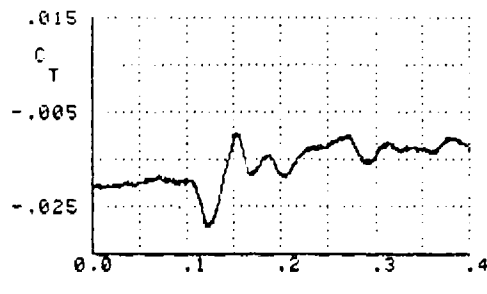
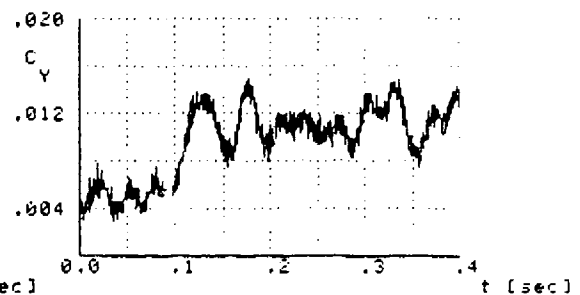
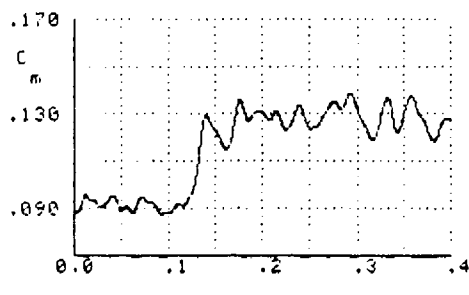
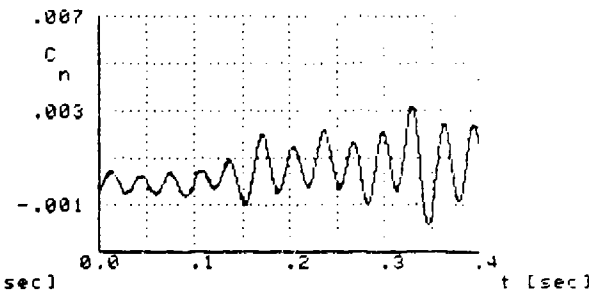
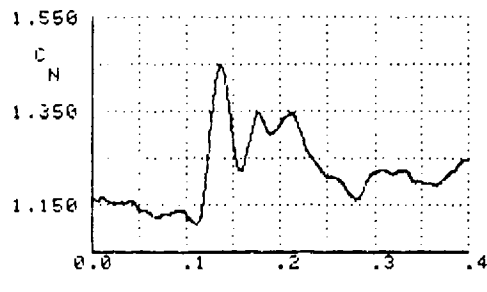
RUN = 3017  
 ALPHA<sub>a</sub> = 22 deg  
 DALPHA<sub>a</sub> = 8 deg  
 T/2 = 63 msec

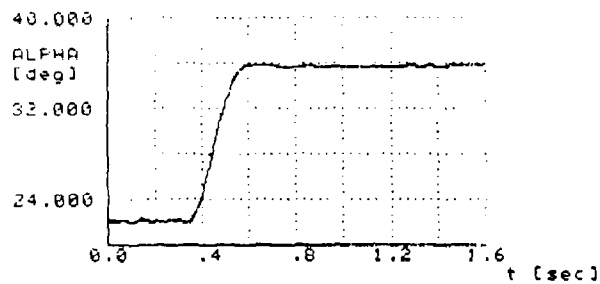




# HALF (1-COS) INPUT NOSE UP

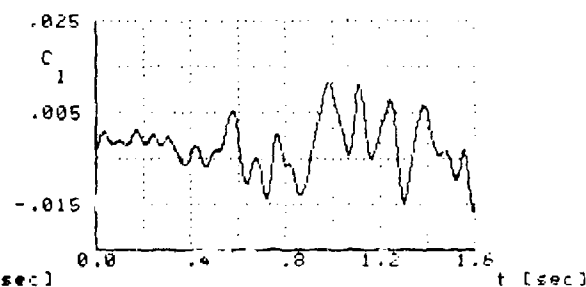
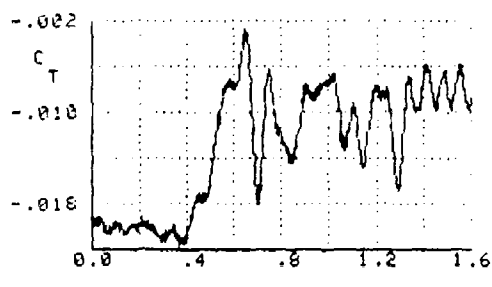
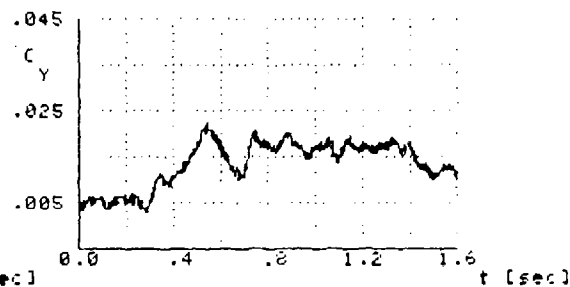
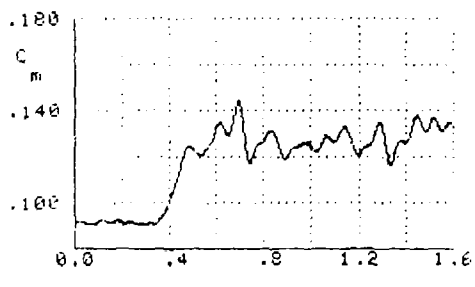
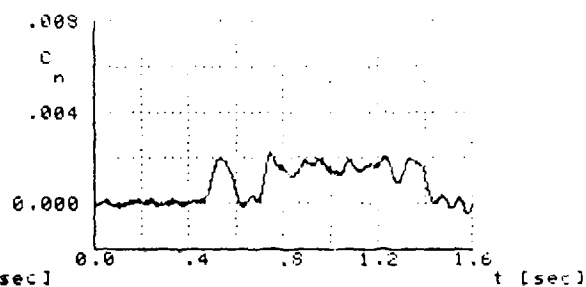
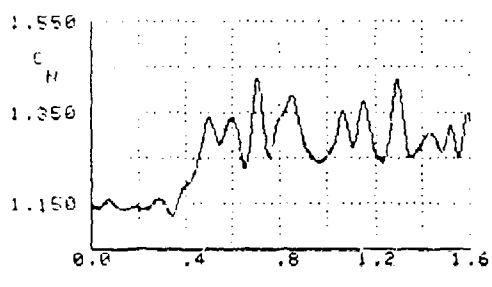
RUN = 3018  
 ALPHA<sub>a</sub> = 22 deg  
 DALPHA<sub>a</sub> = 8 deg  
 T/2 = 42 msec

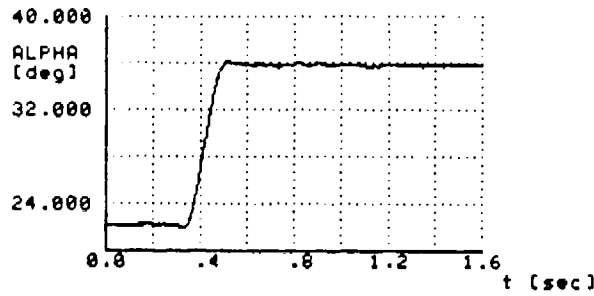




HALF (1-COS) INPUT  
NOSE UP

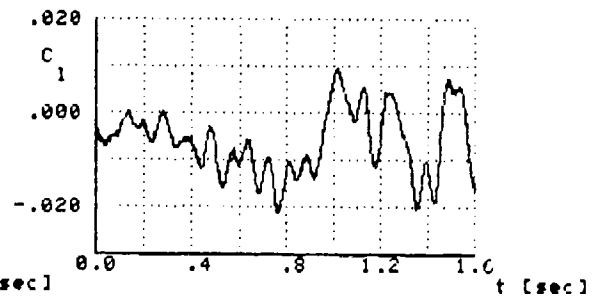
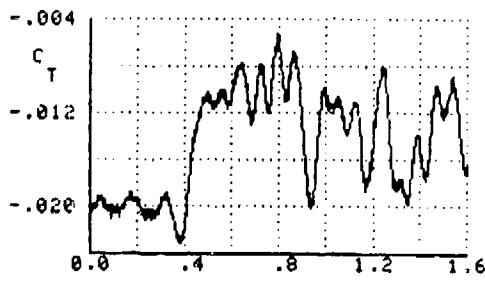
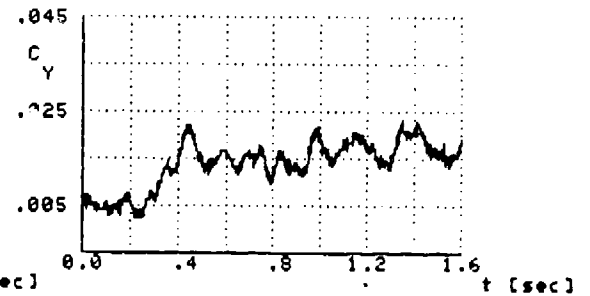
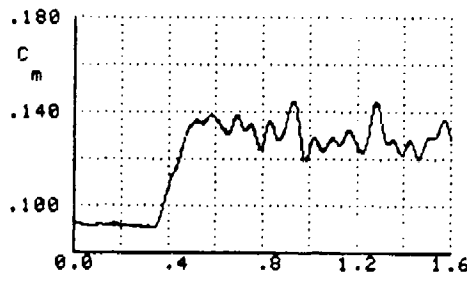
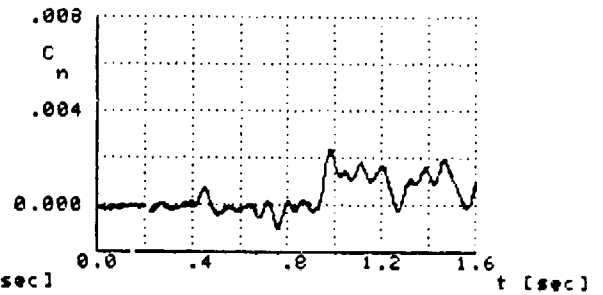
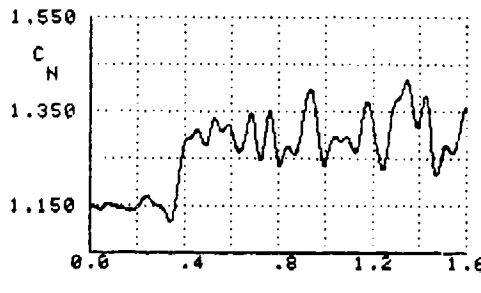
RUN = 3019  
 $\alpha_a = 22$  deg  
 $\Delta\alpha_a = 16$  deg  
 $T/2 = 250$  msec

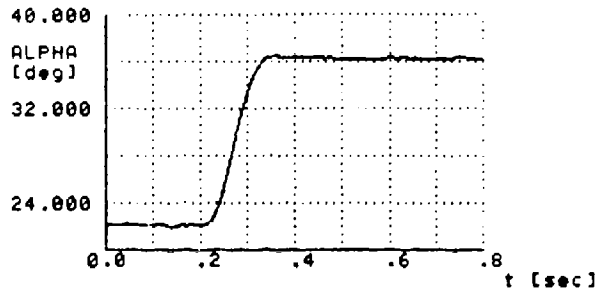




# HALF (1-COS) INPUT NOSE UP

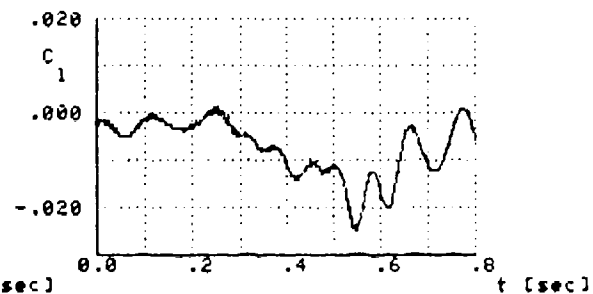
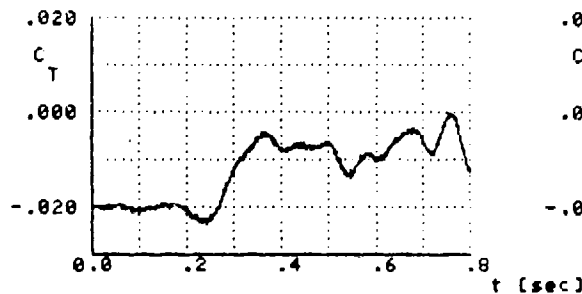
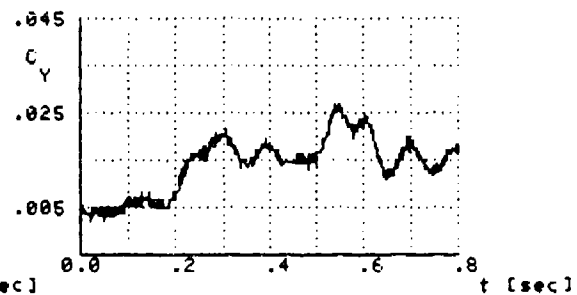
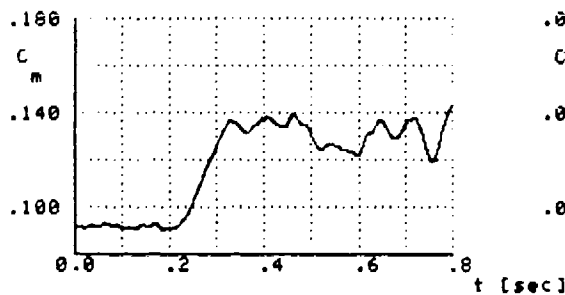
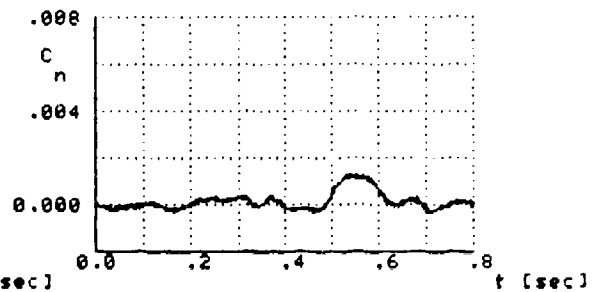
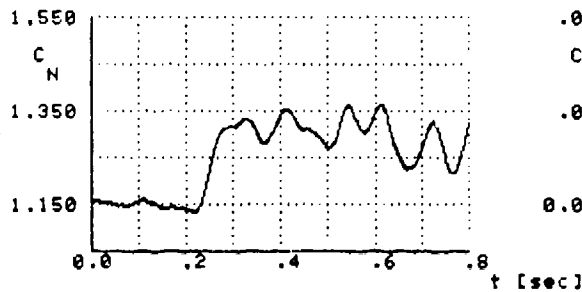
RUN = 3020  
 ALPHA<sub>a</sub> = 22 deg  
 DALPHA<sub>a</sub> = 16 deg  
 T/2 = 167 msec



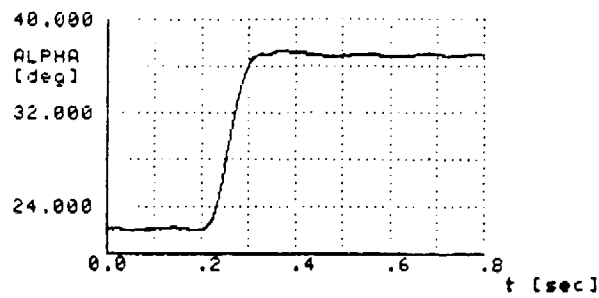


# HALF (1-COS) INPUT NOSE UP

RUN = 3021  
ALPHA<sub>A</sub> = 22 deg  
DALPHA<sub>A</sub> = 16 deg  
T/2 = 125 msec

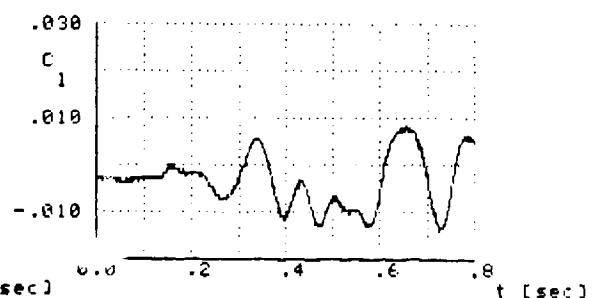
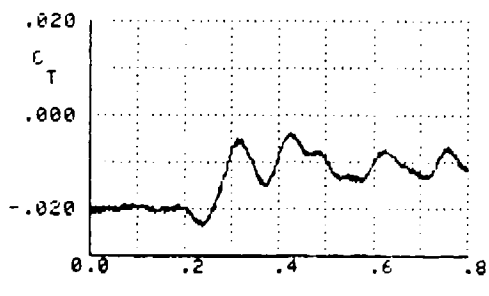
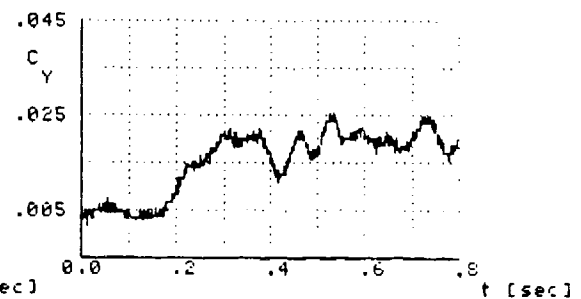
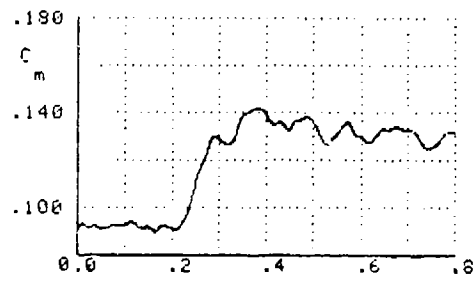
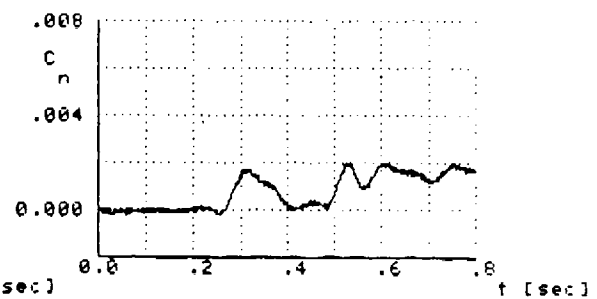
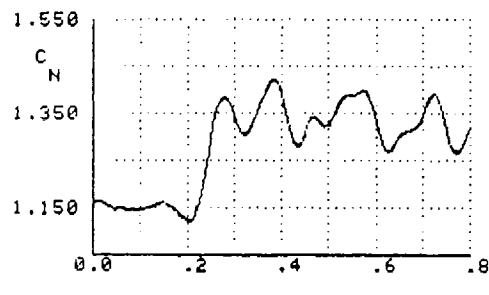


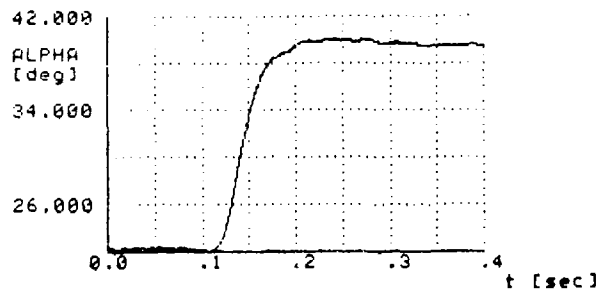




# HALF (1-COS) INPUT NOSE UP

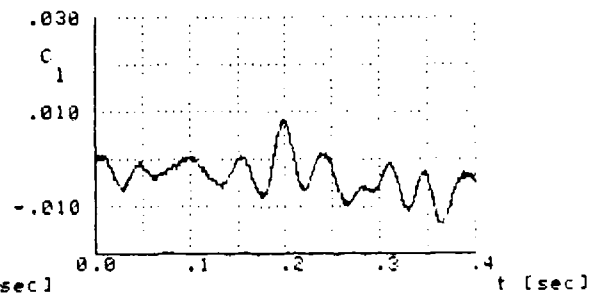
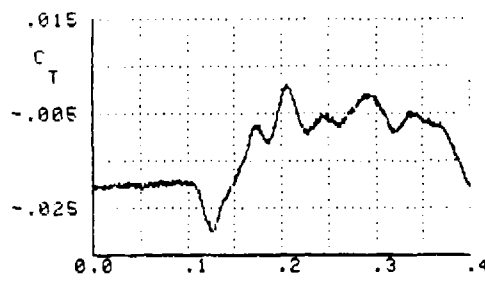
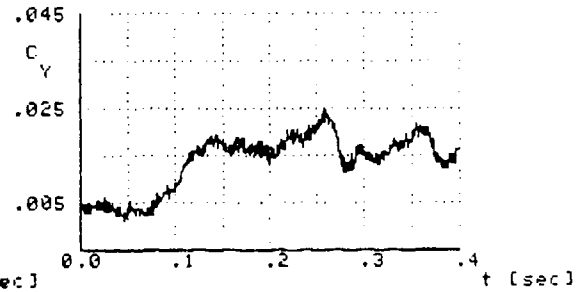
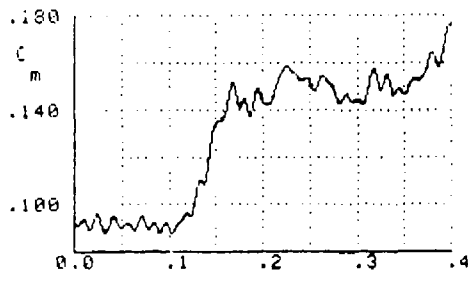
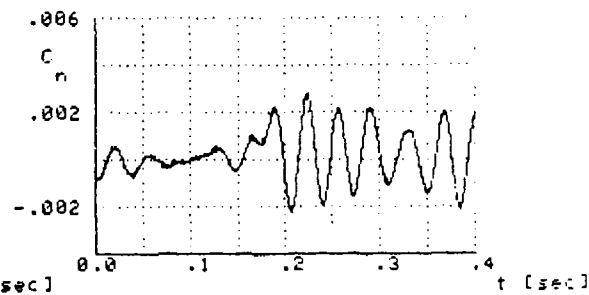
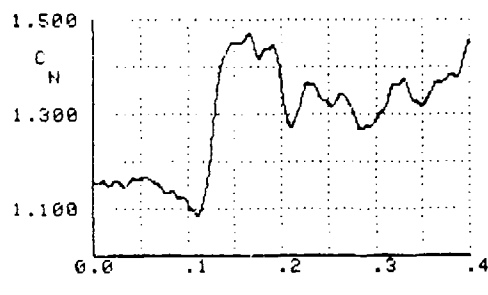
RUN = 3022  
 ALPHA<sub>a</sub> = 22 deg  
 ΔALPHA<sub>a</sub> = 16 deg  
 T/2 = 100 msec

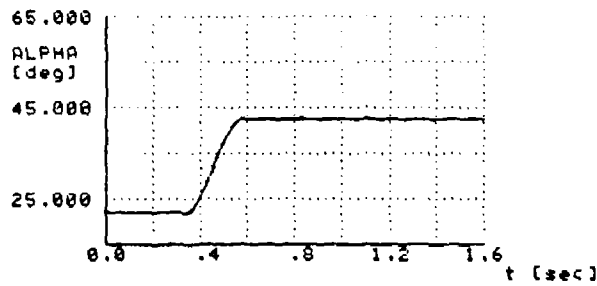




# HALF (1-COS) INPUT NOSE UP

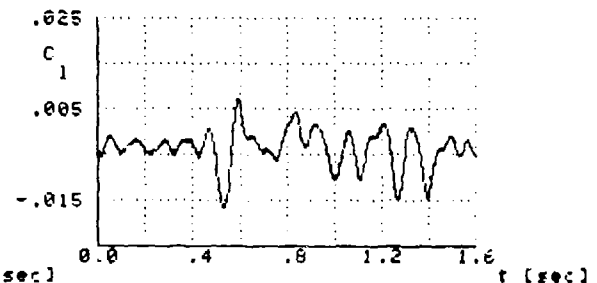
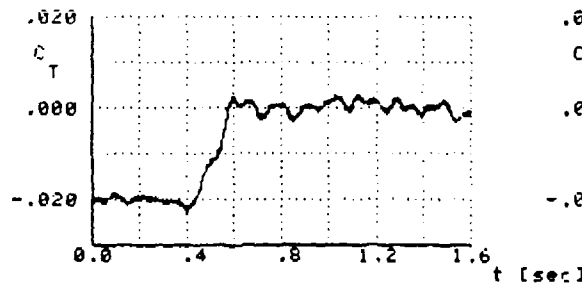
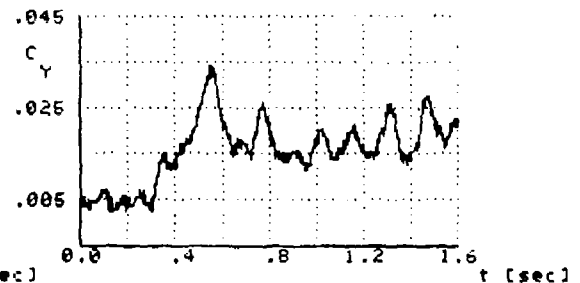
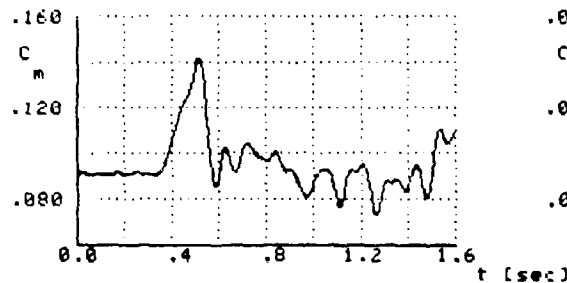
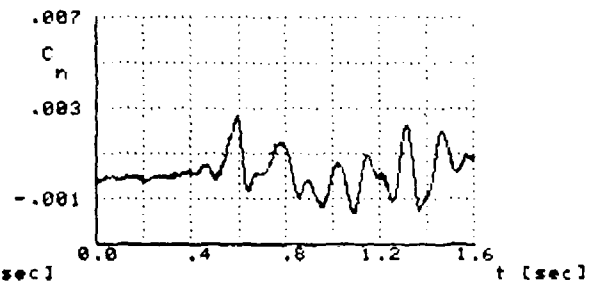
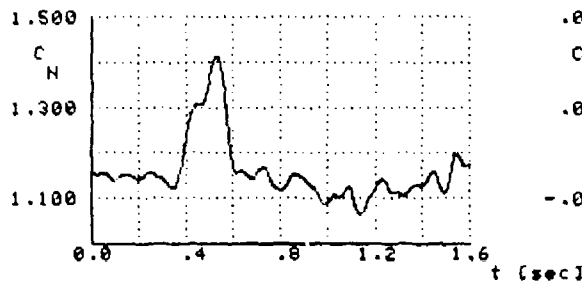
RUN = 3023  
 $\alpha_a$  = 22 deg  
 $\Delta\alpha_a$  = 16 deg  
 $T/2$  = 63 msec

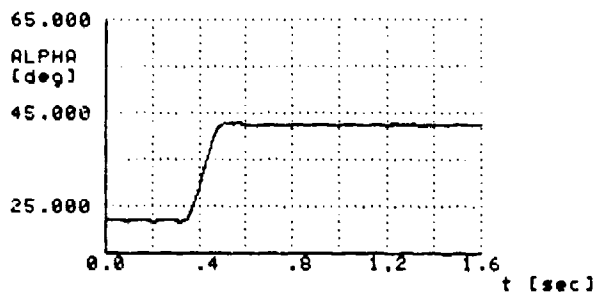




# HALF (1-COS) INPUT NOSE UP

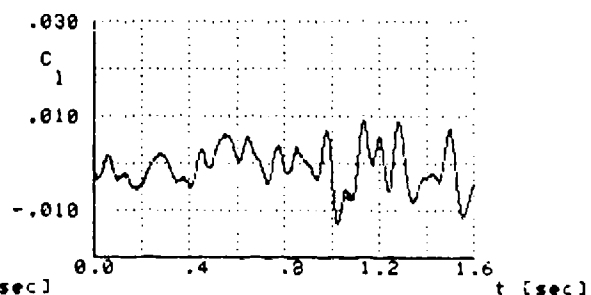
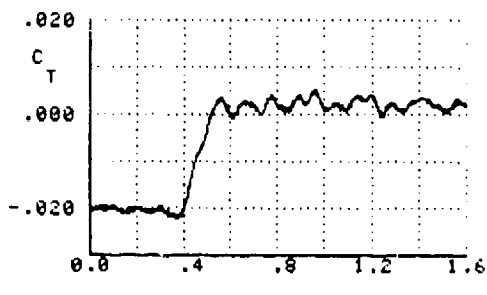
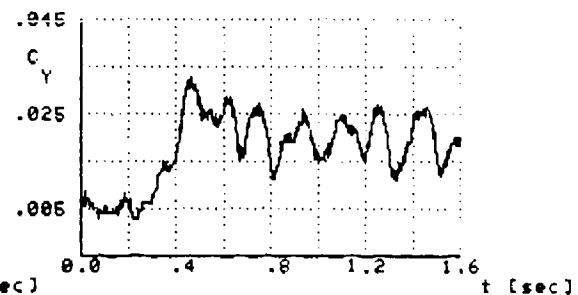
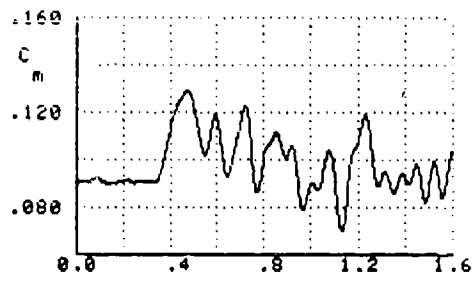
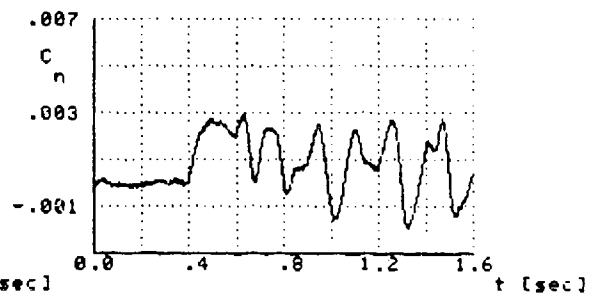
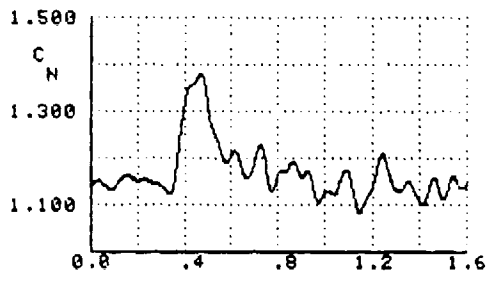
RUN = 3024  
 ALPHA<sub>0</sub> = 22 deg  
 DALPHA<sub>0</sub> = 24 deg  
 T/2 = 250 msec

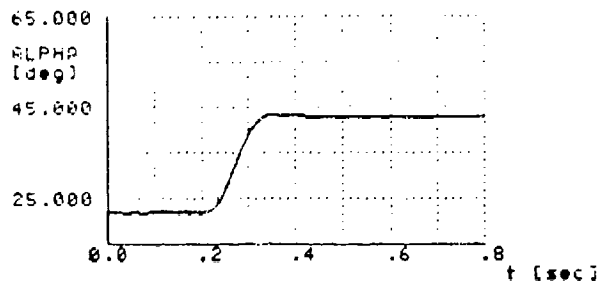




# HALF (1-COS) INPUT NOSE UP

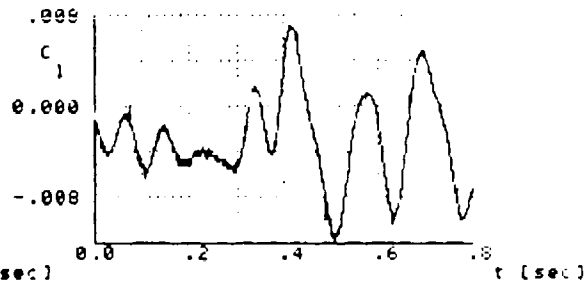
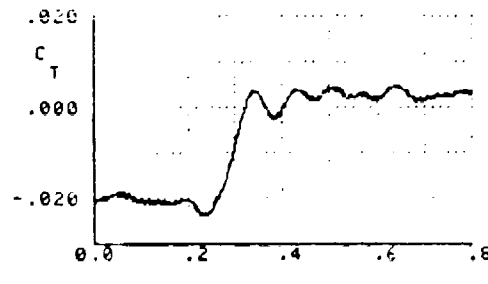
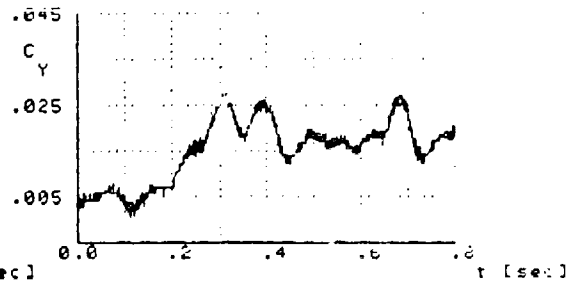
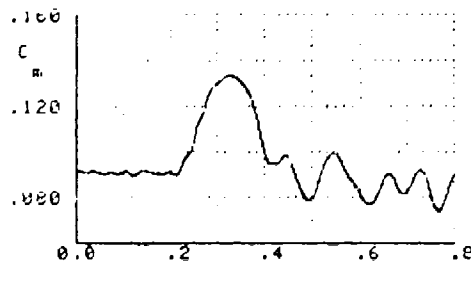
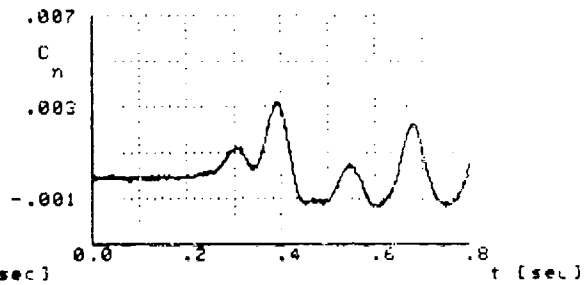
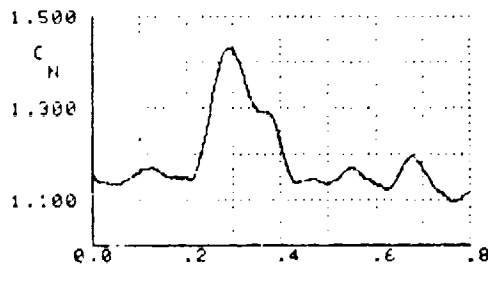
RUN = 3025  
 ALPHA<sub>0</sub> = 22 deg  
 ΔALPHA<sub>0</sub> = 24 deg  
 T/2 = 167 msec

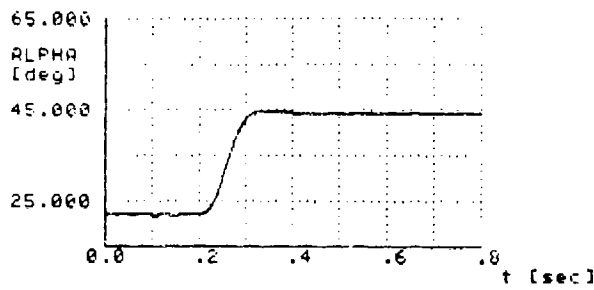




# HALF (1-COS) INPUT NOSE UP

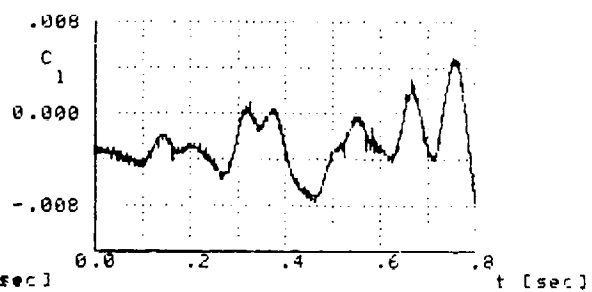
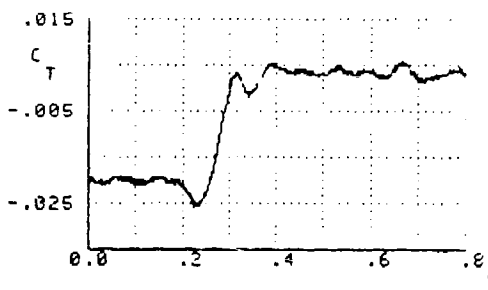
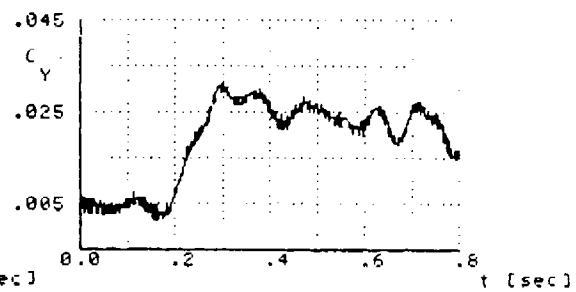
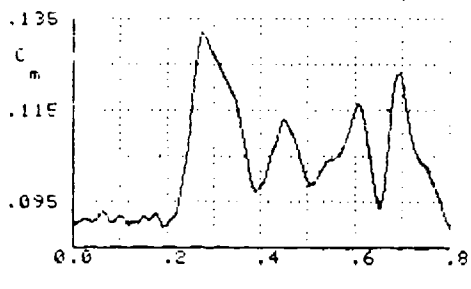
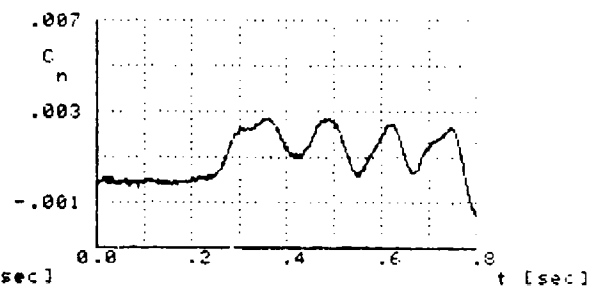
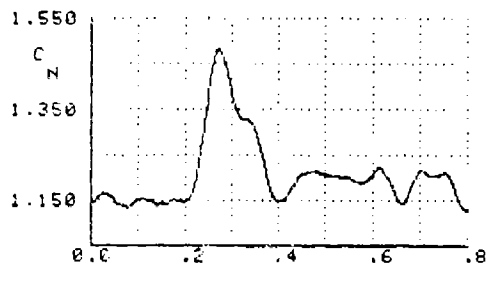
RUN = 3026  
 ALPHA<sub>0</sub> = 22 deg  
 ΔALPHA<sub>0</sub> = 24 deg  
 T/2 = 125 msec

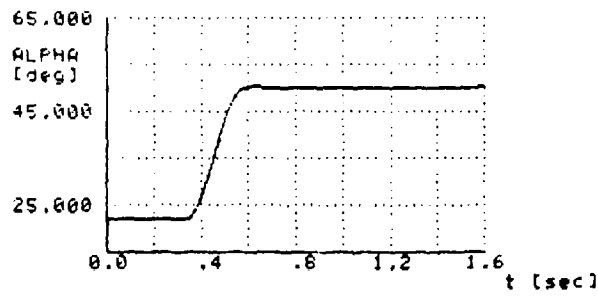




# HALF (1-COS) INPUT NOSE UP

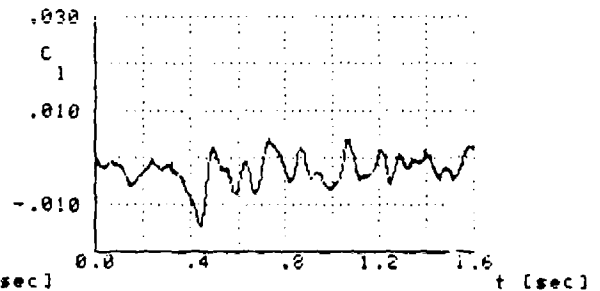
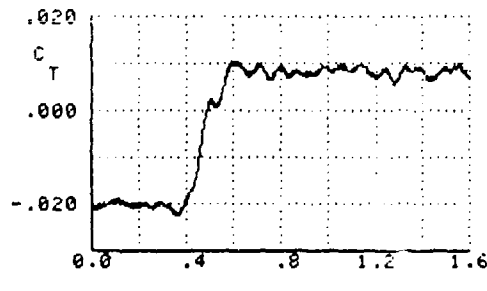
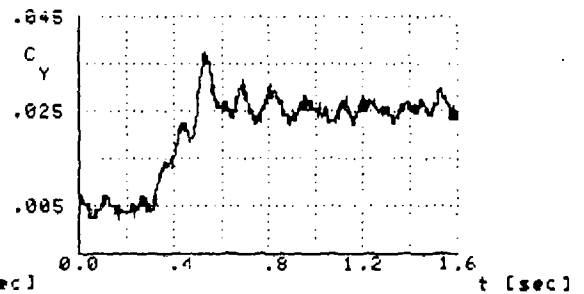
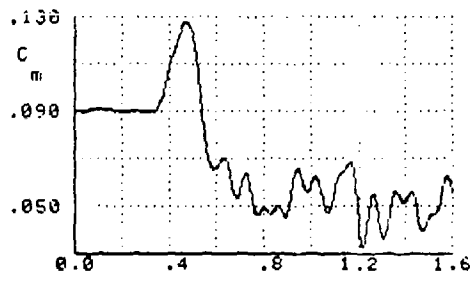
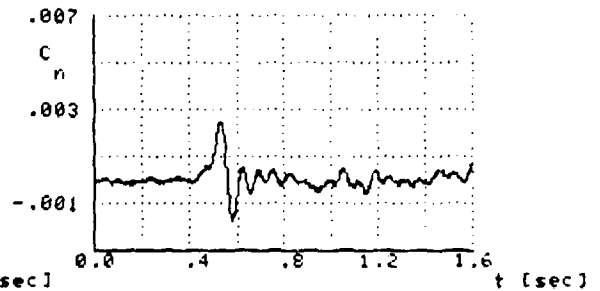
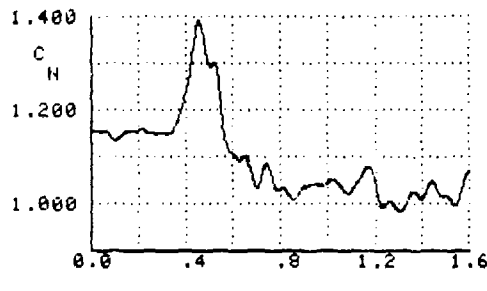
RUN = 3027  
ALPHA<sub>0</sub> = 22 deg  
DALPHA<sub>0</sub> = 24 deg  
T/2 = 100 msec

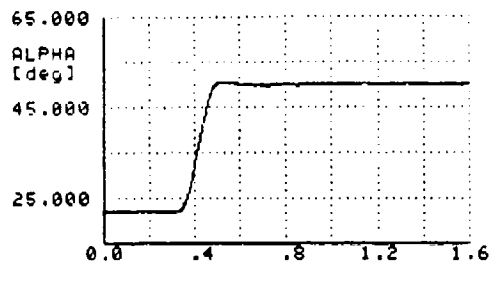




# HALF (1-COS) INPUT NOSE UP

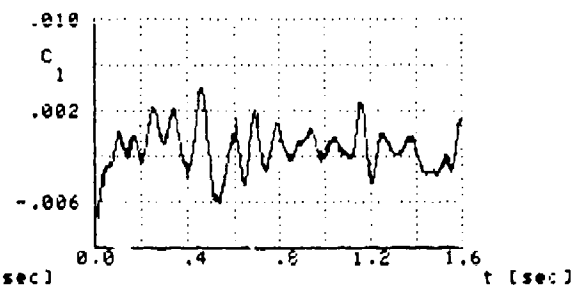
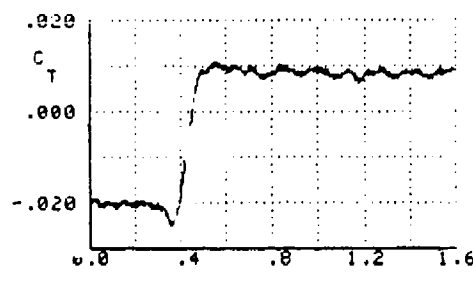
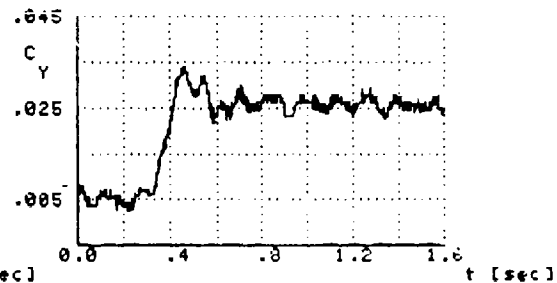
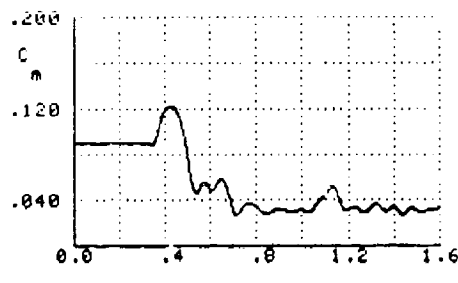
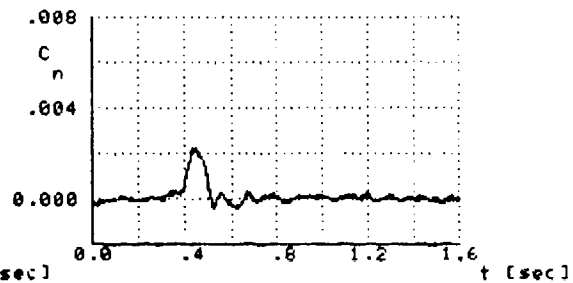
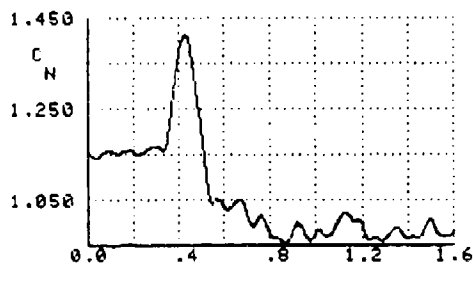
RUN = 3028  
ALPHA<sub>a</sub> = 22 deg  
DALPHA<sub>a</sub> = 32 deg  
T/2 = 250 msec



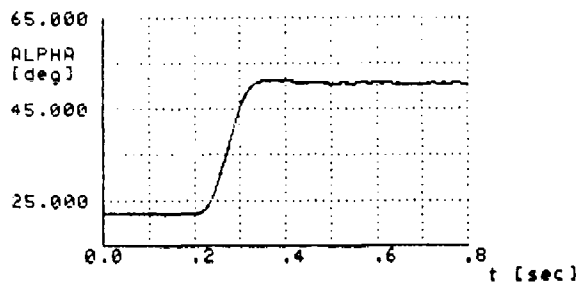


# HALF (1-COS) INPUT NOSE UP

RUN = 3029  
 ALPHA<sub>A</sub> = 22 deg  
 DALPHA<sub>A</sub> = 32 deg  
 T/2 = 167 msec

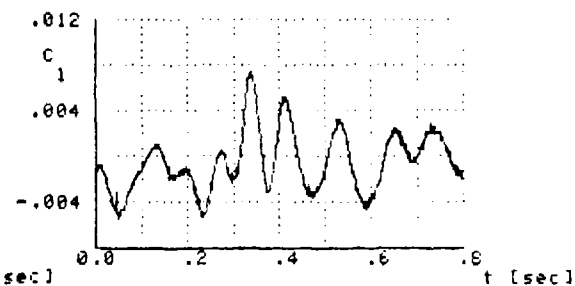
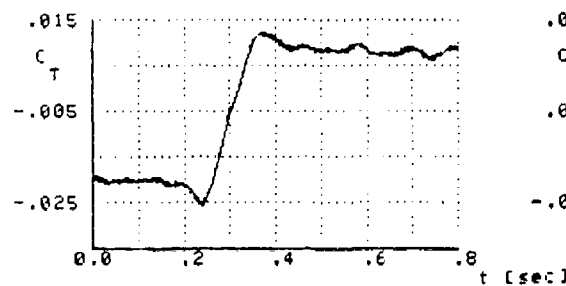
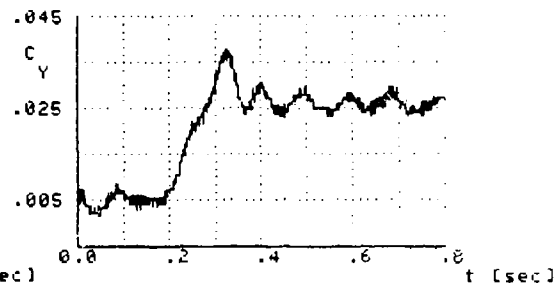
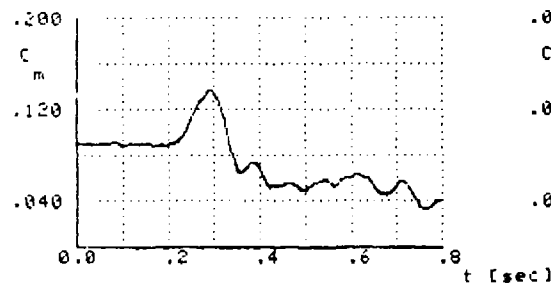
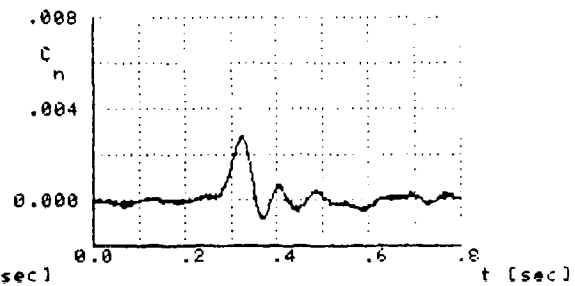
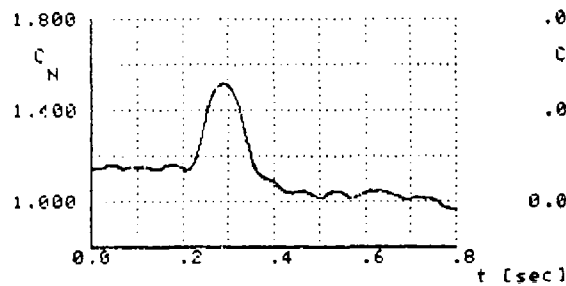


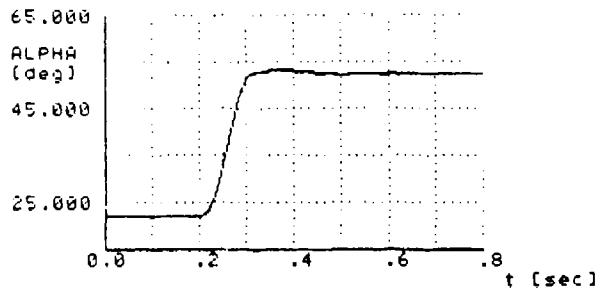




# HALF (1-COS) INPUT NOSE UP

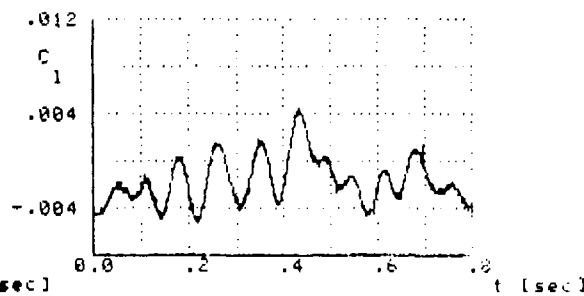
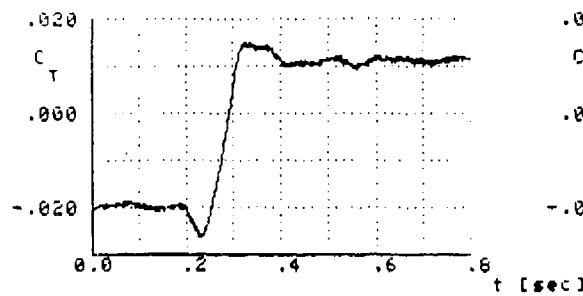
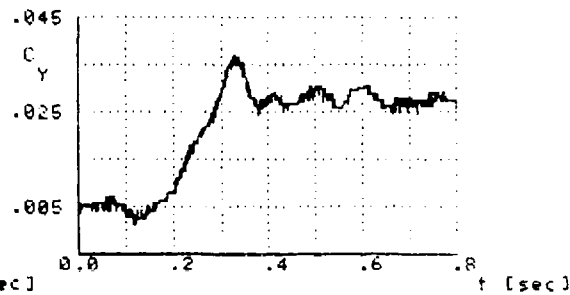
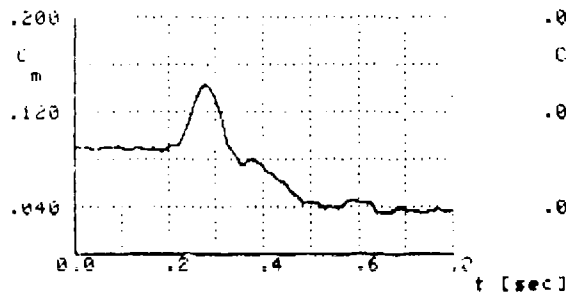
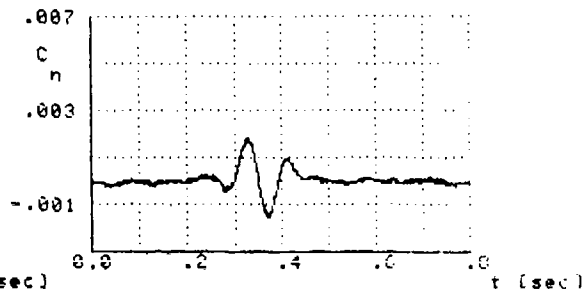
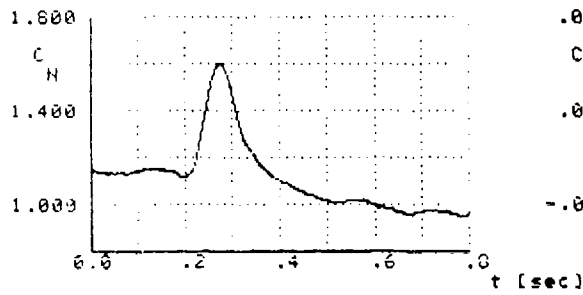
RUN = 3030  
ALPHA<sub>a</sub> = 22 deg  
DALPHA<sub>a</sub> = 32 deg  
T/2 = 125 msec

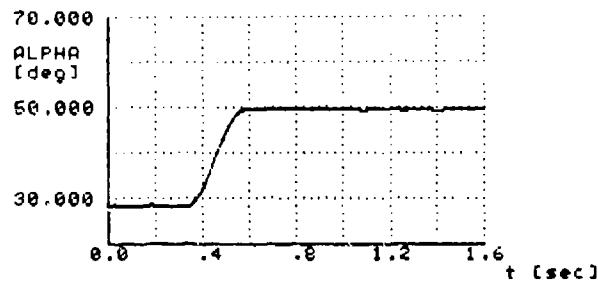




# HALF (1-COS) INPUT NOSE UP

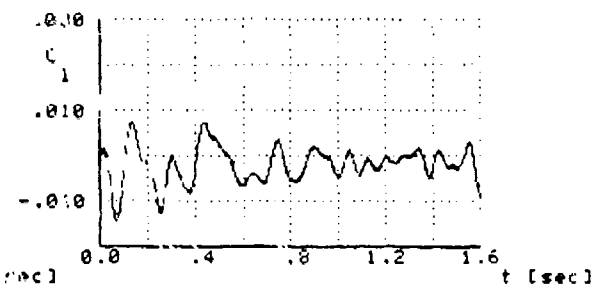
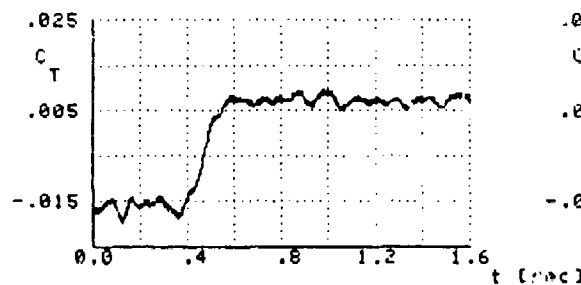
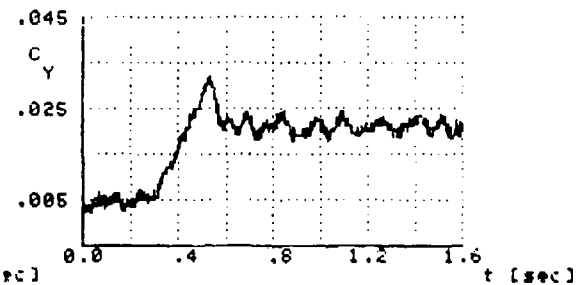
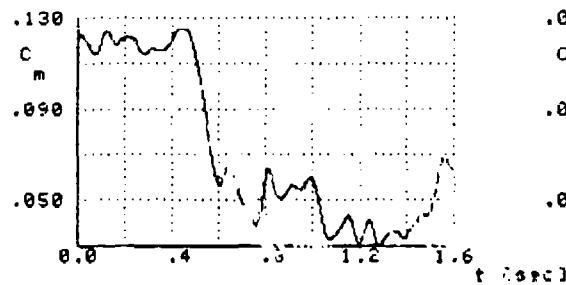
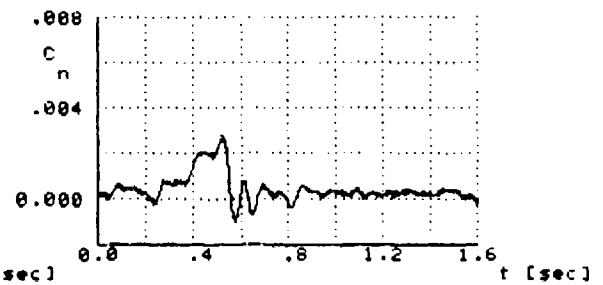
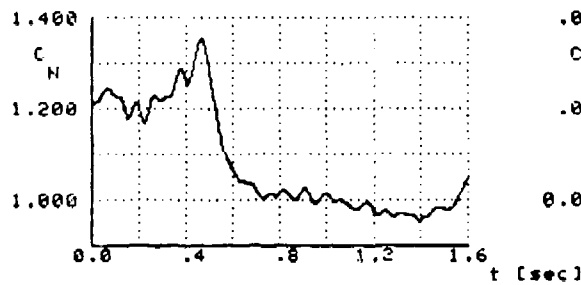
RUN = 3031  
ALPHA<sub>a</sub> = 22 deg  
DALPHA<sub>a</sub> = 32 deg  
T/2 = 100 msec

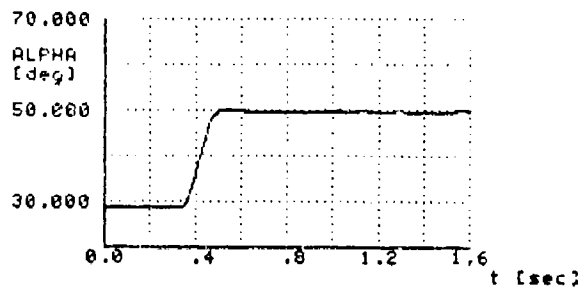




# HALF (1-COS) INPUT NOSE UP

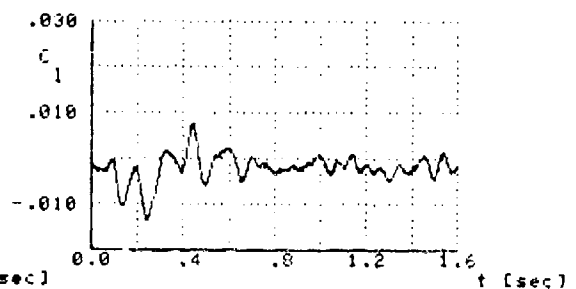
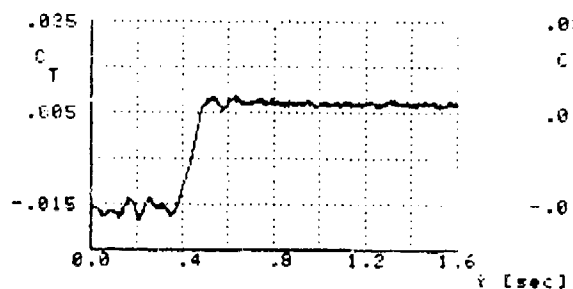
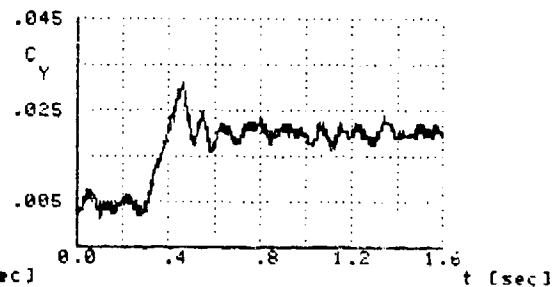
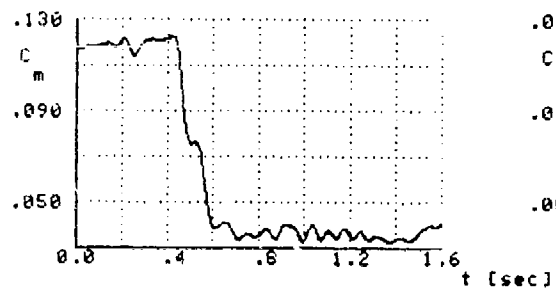
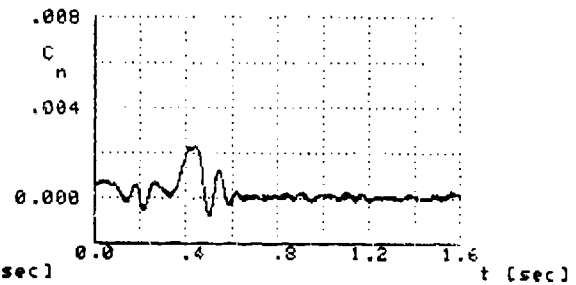
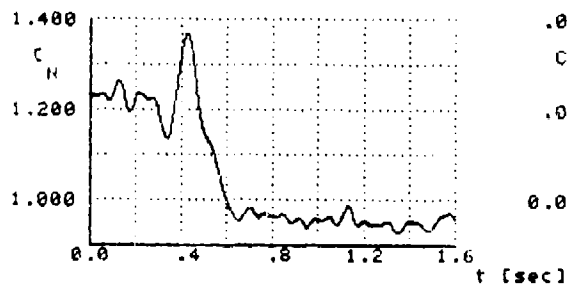
RUN = 3032  
 ALPHA<sub>0</sub> = 30 deg  
 ΔALPHA<sub>0</sub> = 24 deg  
 T/2 = 250 msec

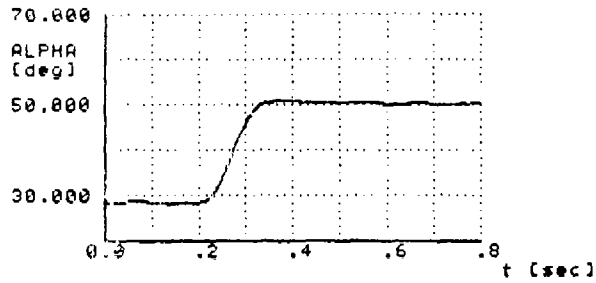




# HALF (1-COS) INPUT NOSE UP

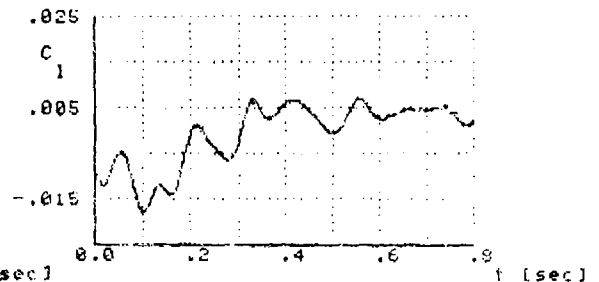
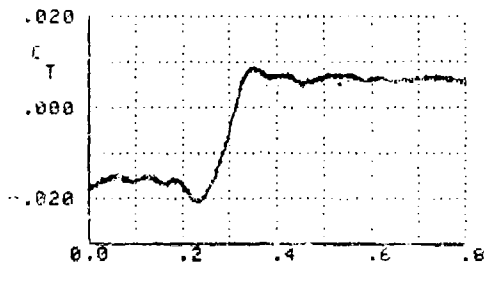
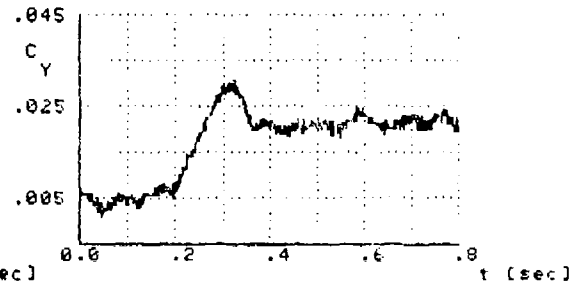
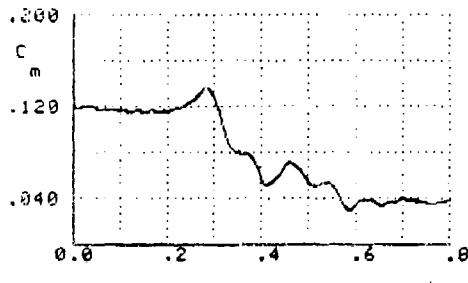
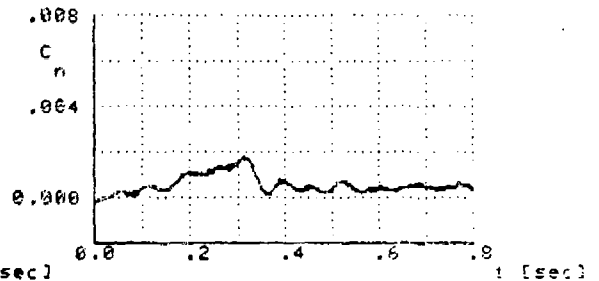
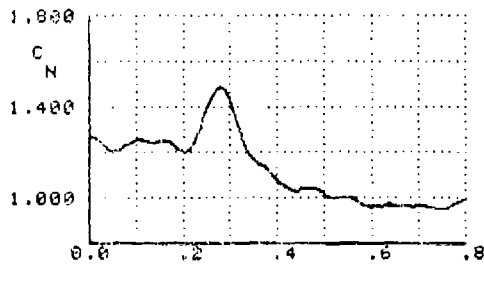
RUN = 3033  
ALPHA<sub>0</sub> = 30 deg  
DALPHA<sub>0</sub> = 24 deg  
T/2 = 167 msec

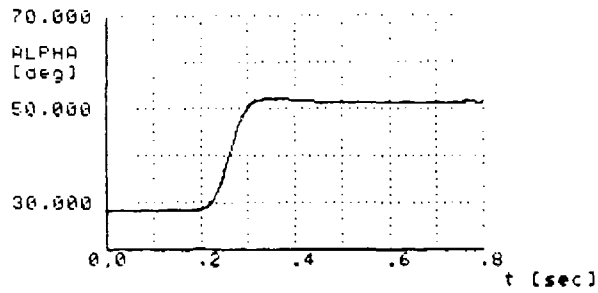




# HALF (1-COS) INPUT NOSE UP

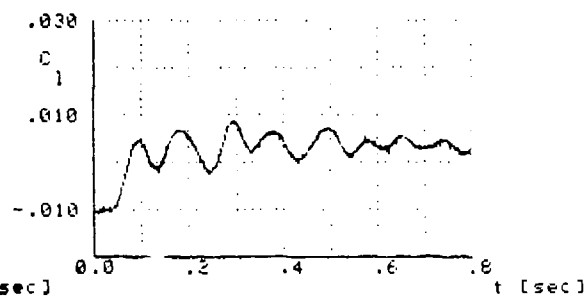
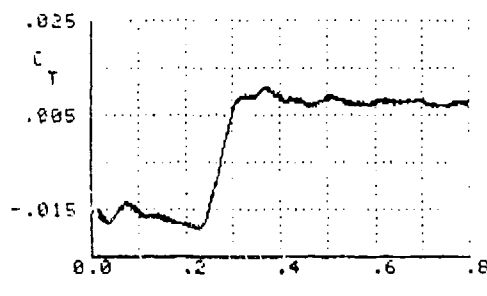
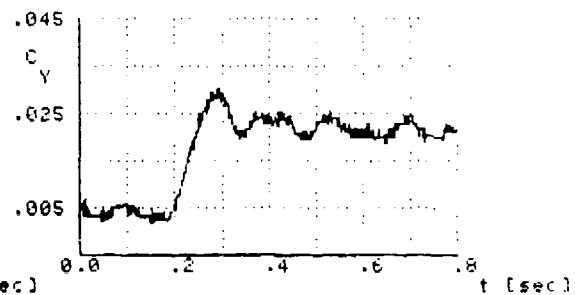
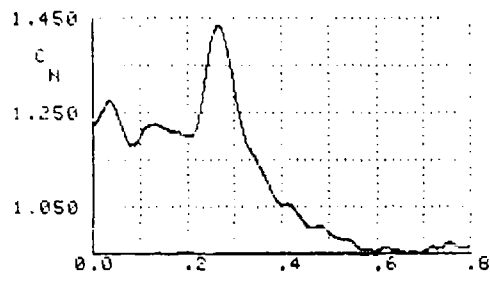
RUN = 3034  
ALPHA<sub>0</sub> = 30 deg  
DALPHA<sub>0</sub> = 24 deg  
T/2 = 125 msec

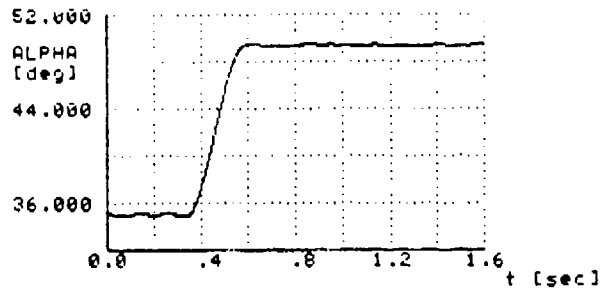




# HALF (1-COS) INPUT NOSE UP

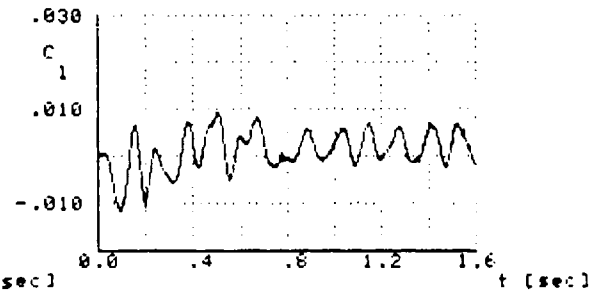
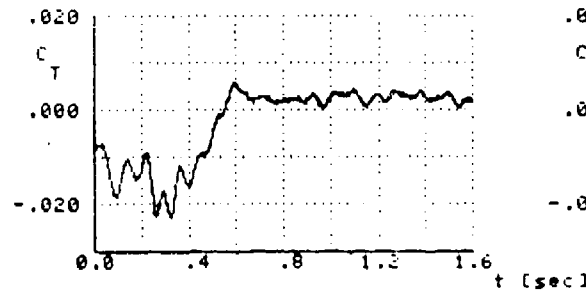
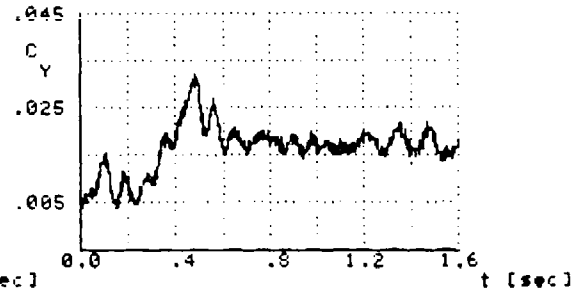
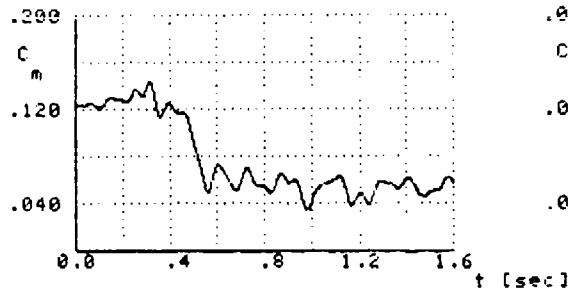
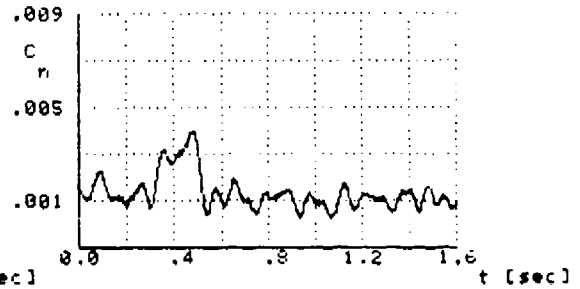
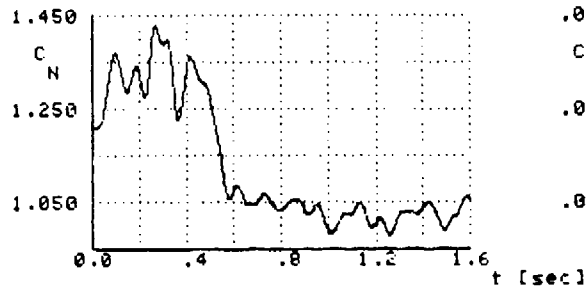
RUN = 3035  
ALPHA<sub>a</sub> = 30 deg  
DALPHA<sub>a</sub> = 24 deg  
T/2 = 100 msec

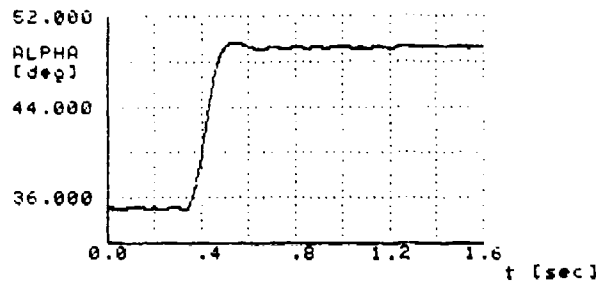




# HALF (1-COS) INPUT NOSE UP

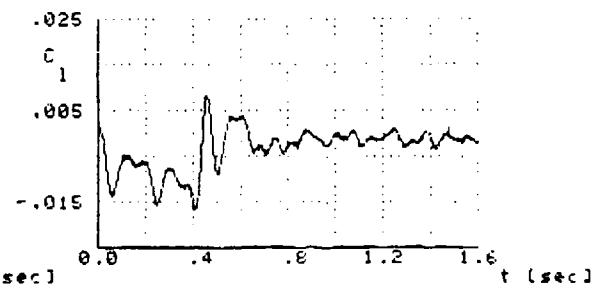
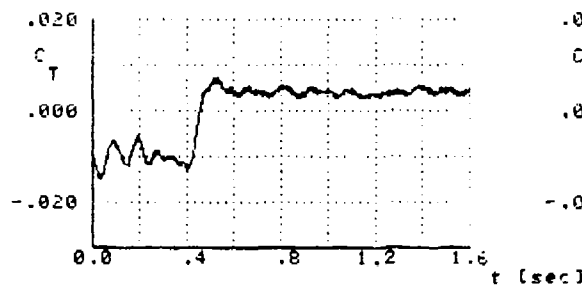
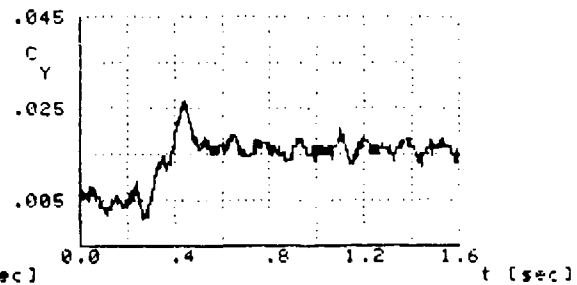
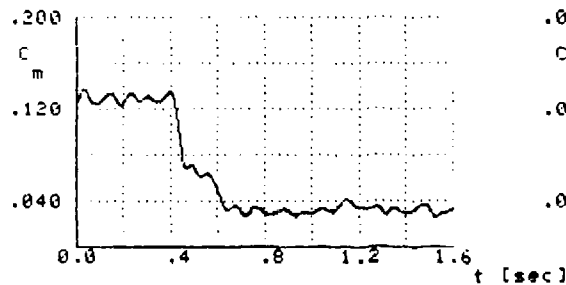
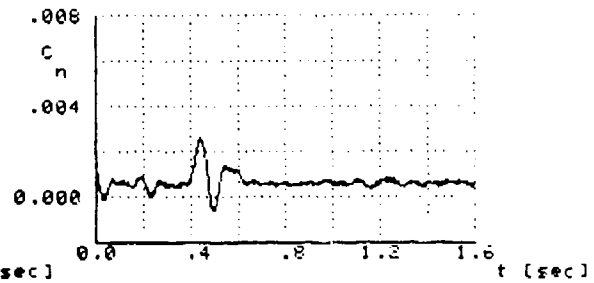
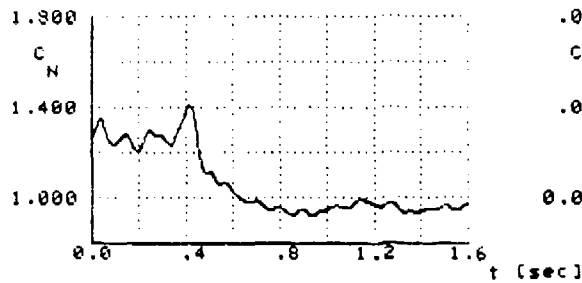
RUN = 3036  
 $\alpha_a$  = 38 deg  
 $\Delta\alpha_a$  = 16 deg  
 $T/2$  = 250 msec



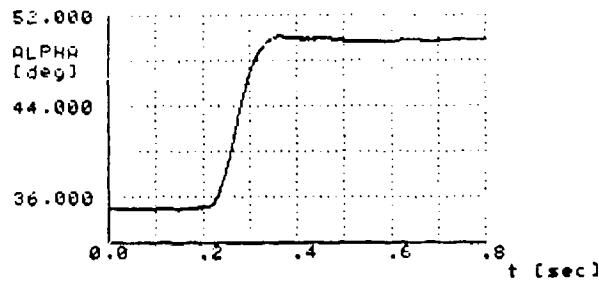


# HALF (1-COS) INPUT NOSE UP

RUN = 3037  
 $\text{ALPHA}_a = 38 \text{ deg}$   
 $\text{DALPHA}_a = 16 \text{ deg}$   
 $T/2 = 167 \text{ msec}$

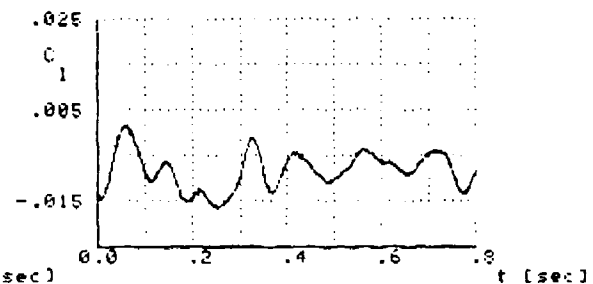
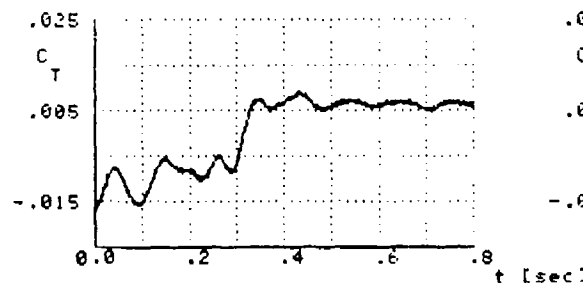
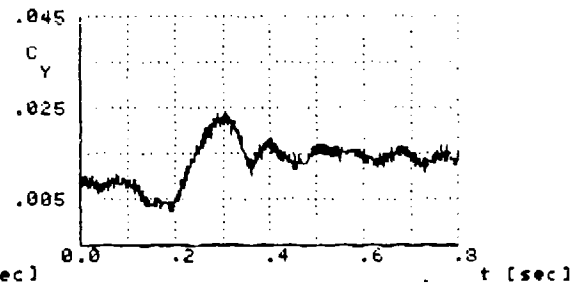
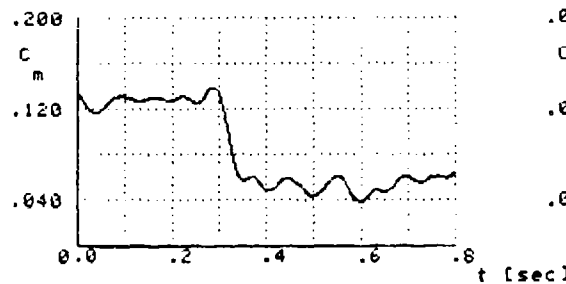
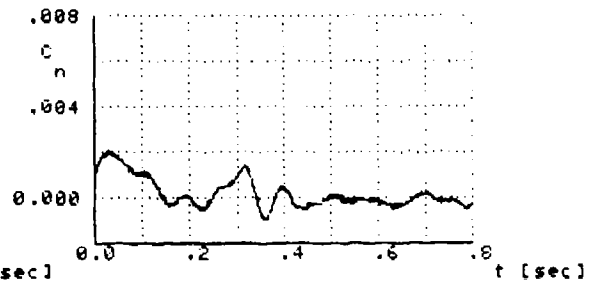
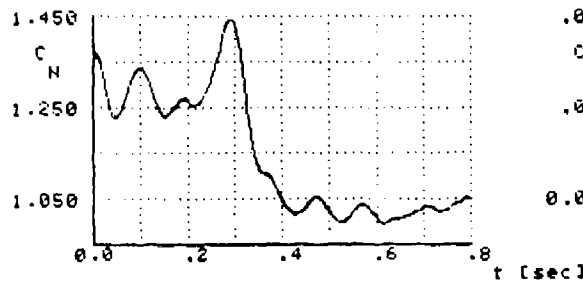


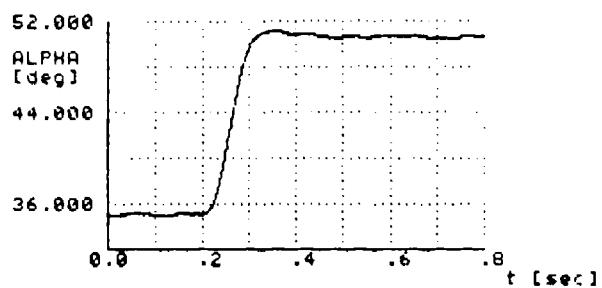




# HALF (1-COS) INPUT NOSE UP

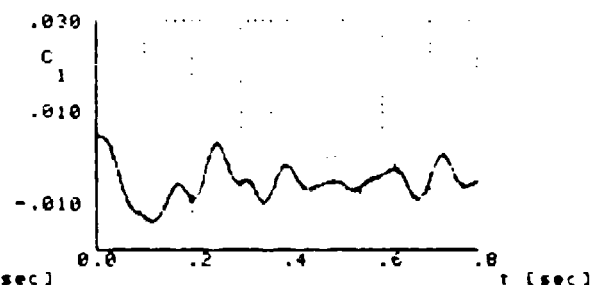
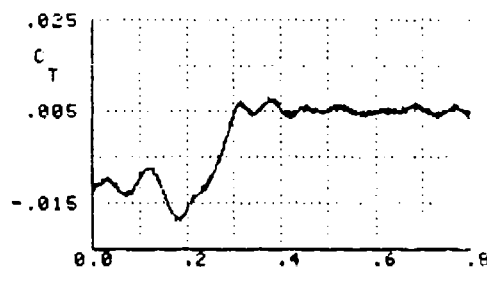
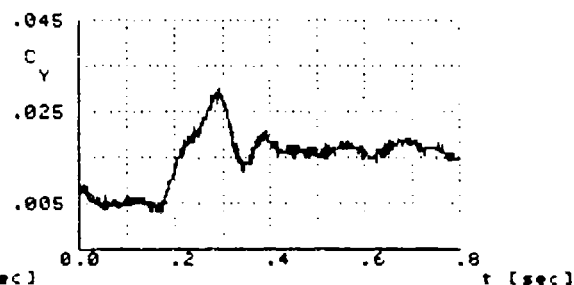
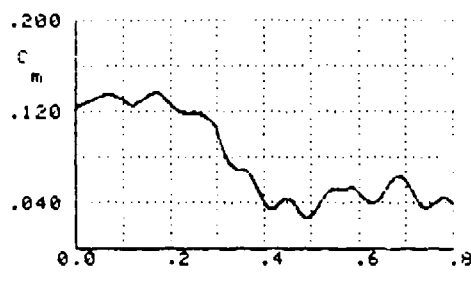
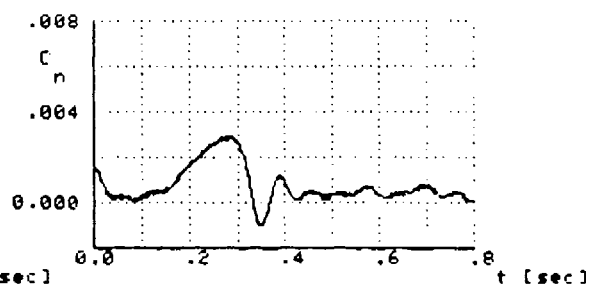
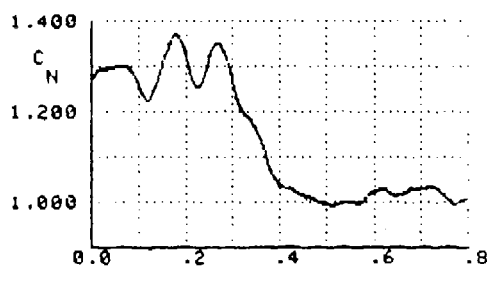
RUN = 3038  
ALPHA = 36 deg  
DALPHA = 16 deg  
T/2 = 125 msec

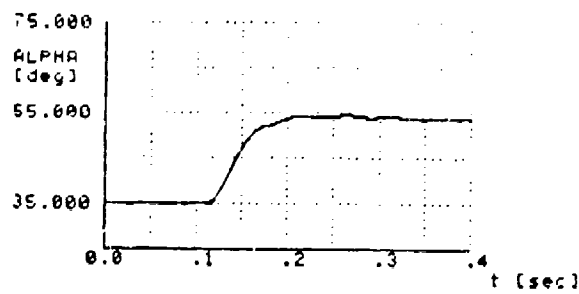




# HALF (1-COS) INPUT NOSE UP

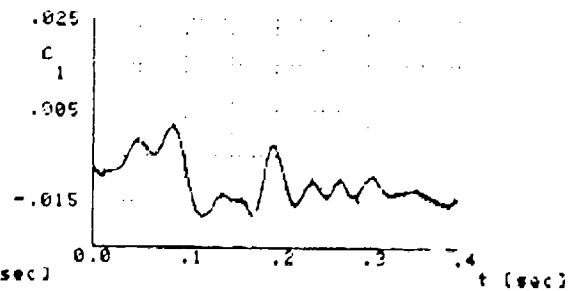
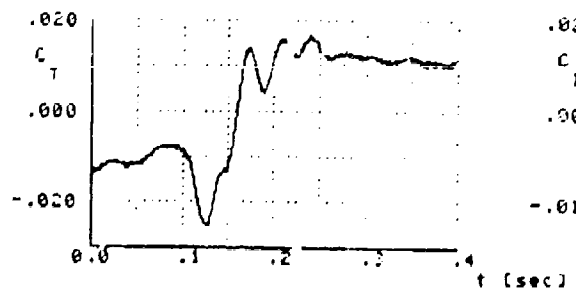
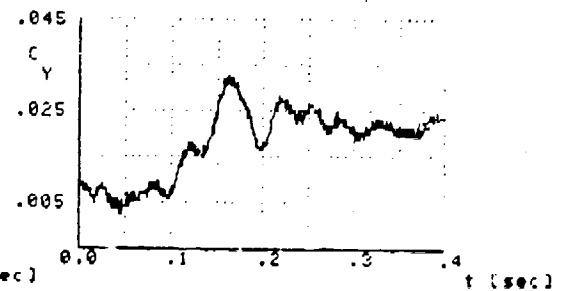
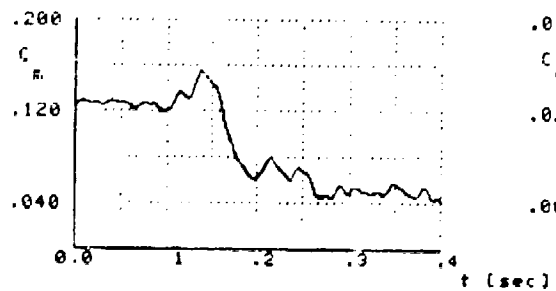
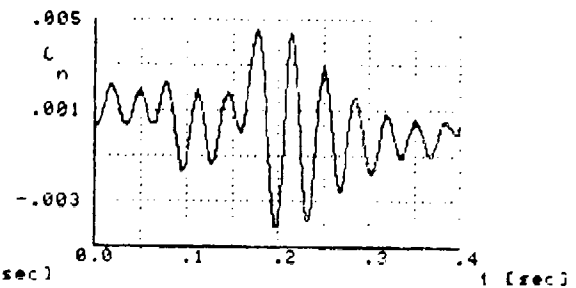
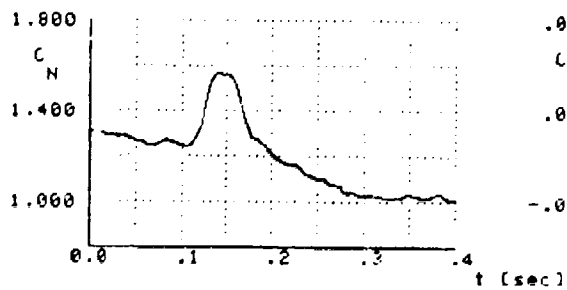
RUN = 3039  
ALPHA<sub>a</sub> = 38 deg  
DALPHA<sub>a</sub> = 16 deg  
T/2 = 100 msec

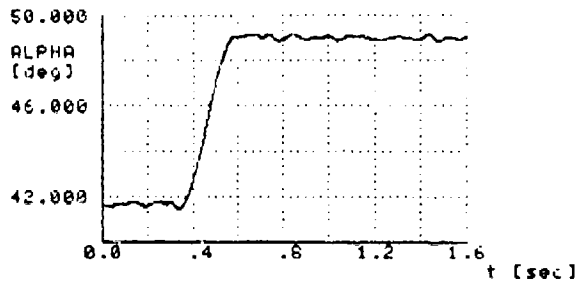




# HALF (1-COS) INPUT NOSE UP

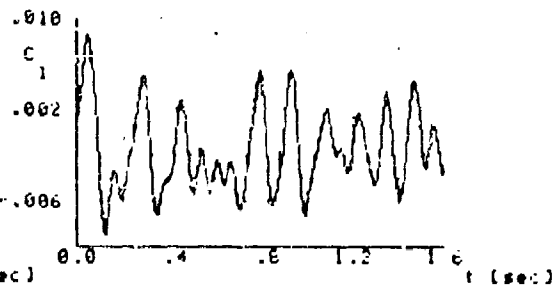
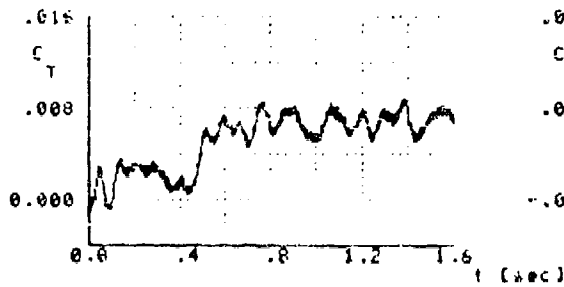
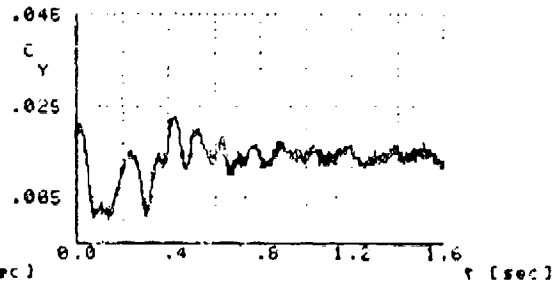
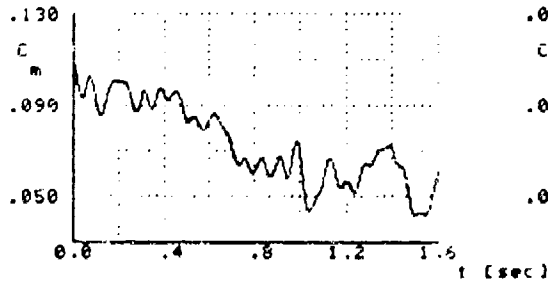
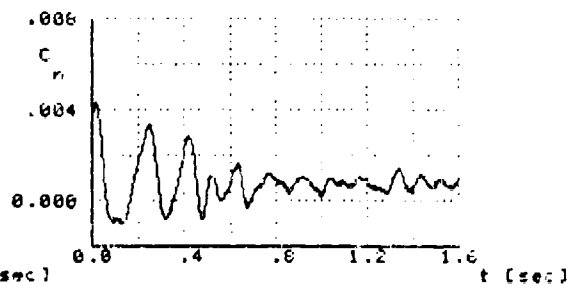
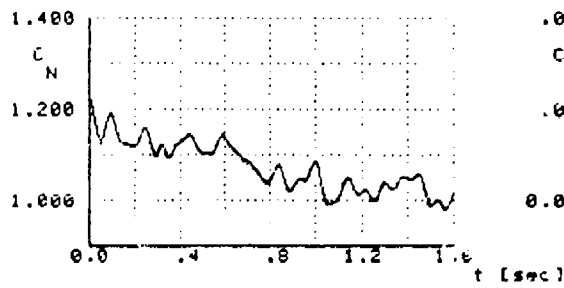
RUN = 3848  
ALPHA = 38 deg  
DALPHA = 16 deg  
T/2 = 63 msec

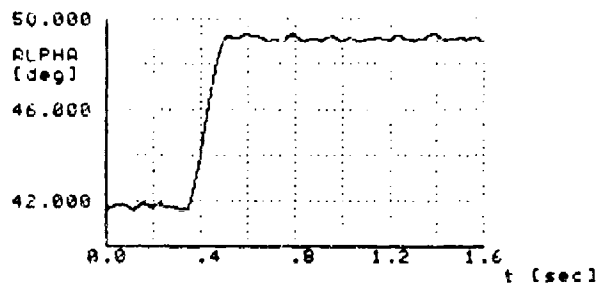




# HALF (1-COS) INPUT NOSE UP

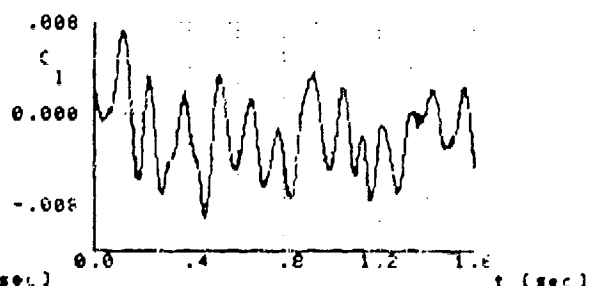
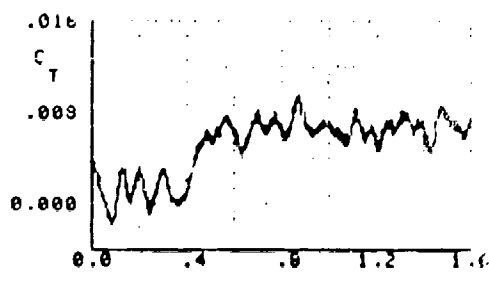
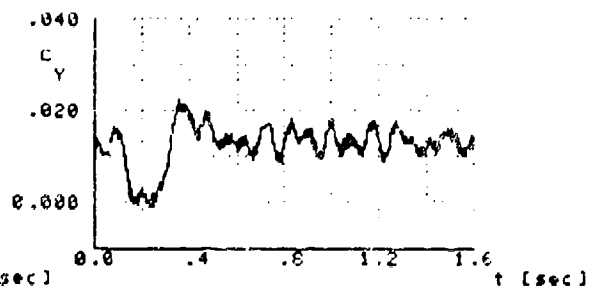
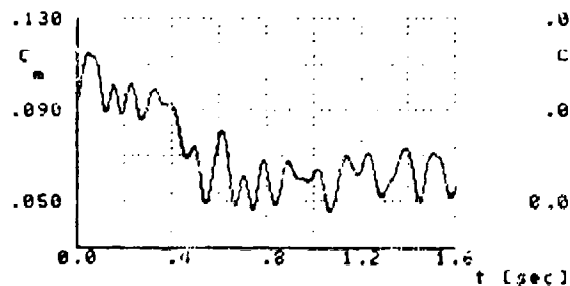
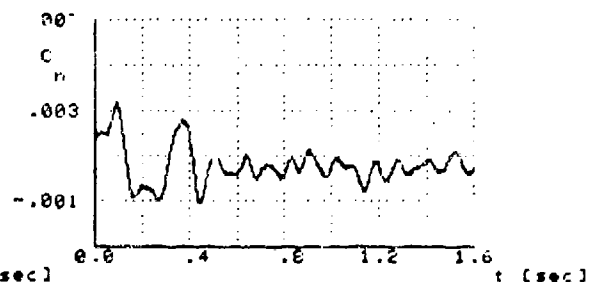
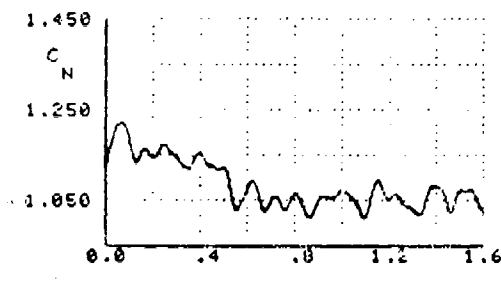
RUN = 3041  
ALPHA<sub>0</sub> = 46 deg  
ΔALPHA<sub>0</sub> = 8 deg  
T/2 = 250 msec

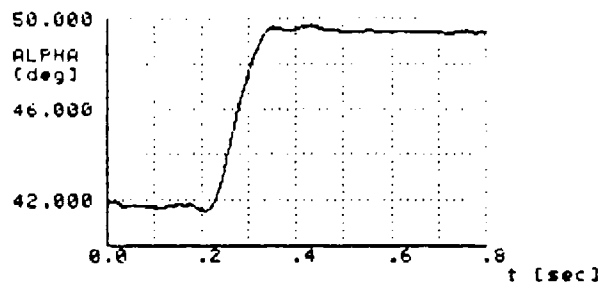




HALF (1-COS) INPUT  
NOSE UP

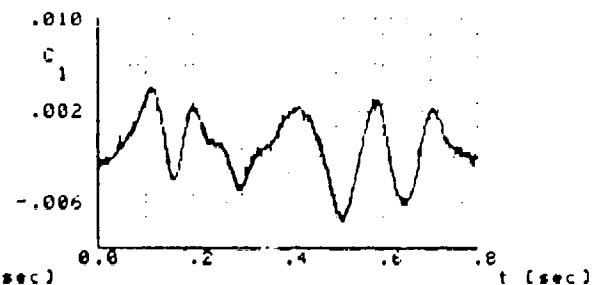
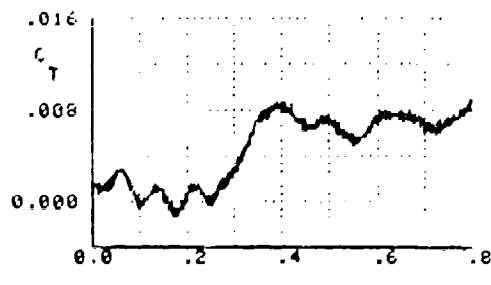
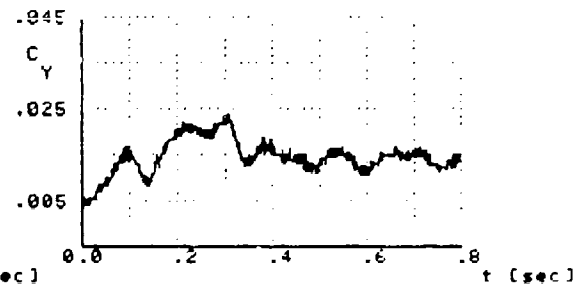
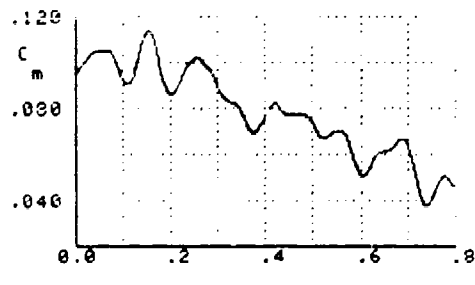
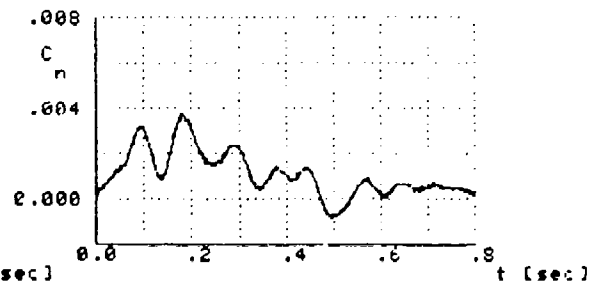
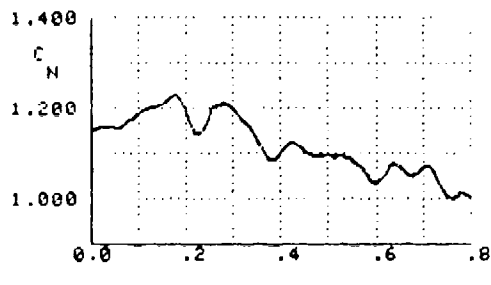
RUN = 3042  
ALPHA = 46 deg  
DALPHA = 8 deg  
T/2 = 167 msec

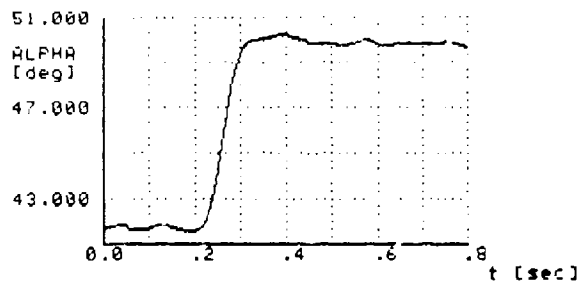




# HALF (1-COS) INPUT NOSE UP

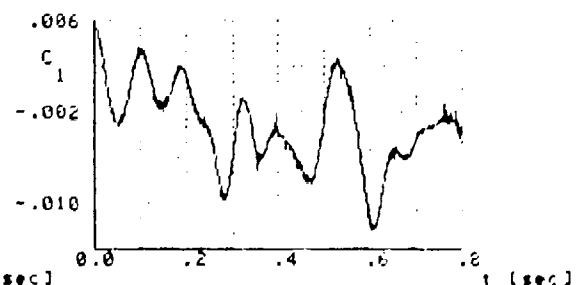
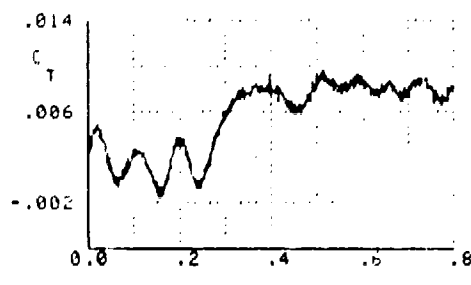
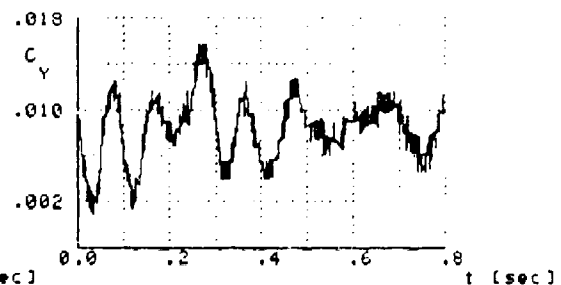
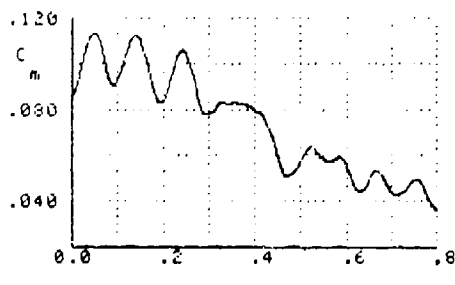
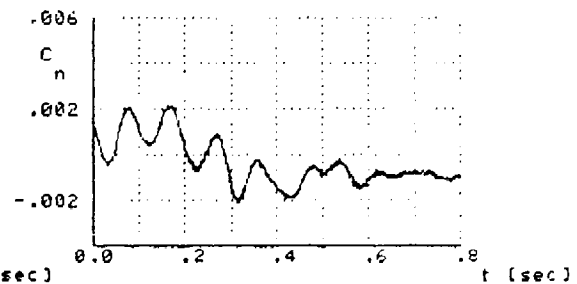
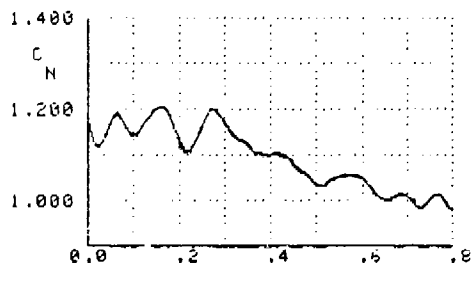
RUN = 3043  
 ALPHA<sub>0</sub> = 46 deg  
 ΔALPHA<sub>0</sub> = 8 deg  
 T/2 = 125 msec

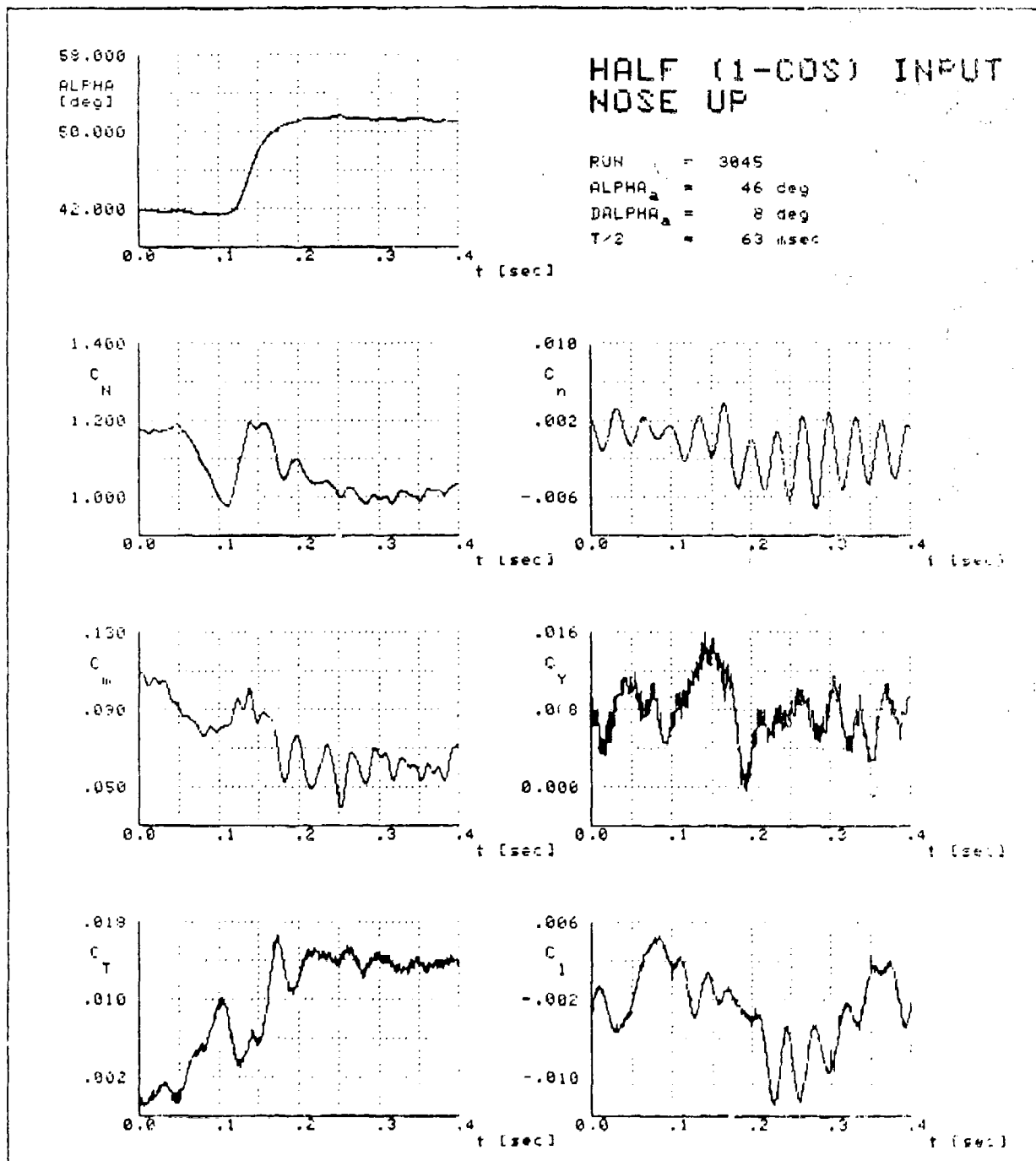




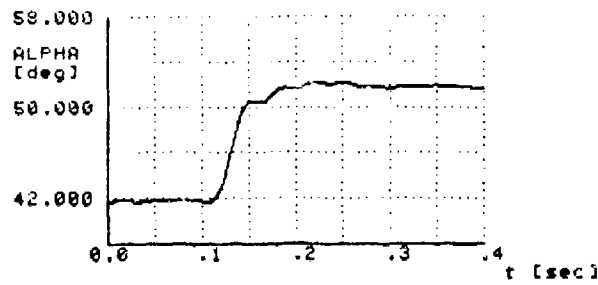
# HALF (1-COS) INPUT NOSE UP

RUN = 3044  
 $\alpha_a$  = 46 deg  
 $\Delta\alpha_a$  = 8 deg  
 $T/2$  = 100 msec



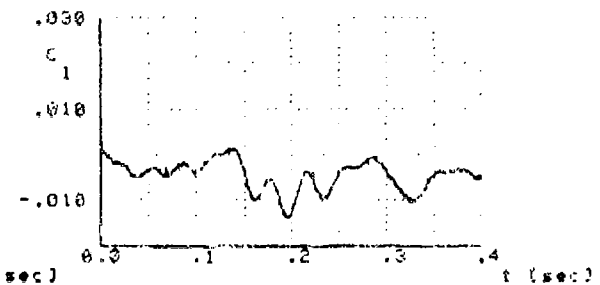
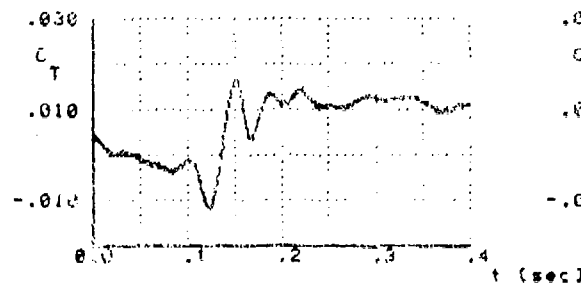
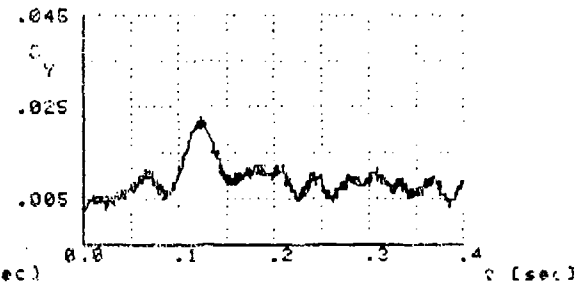
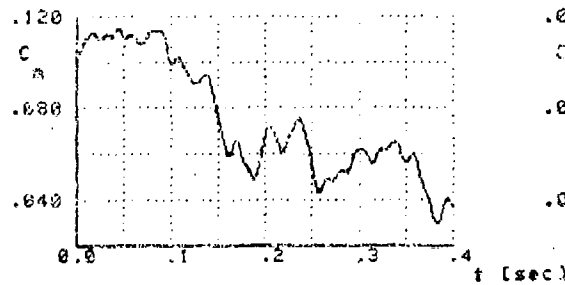
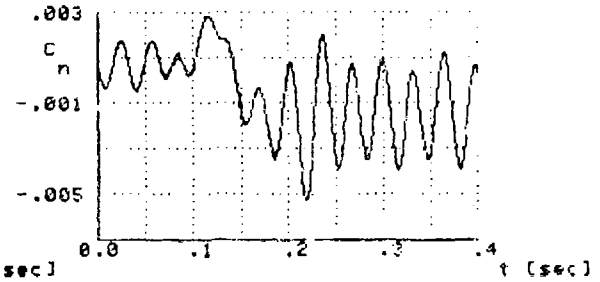
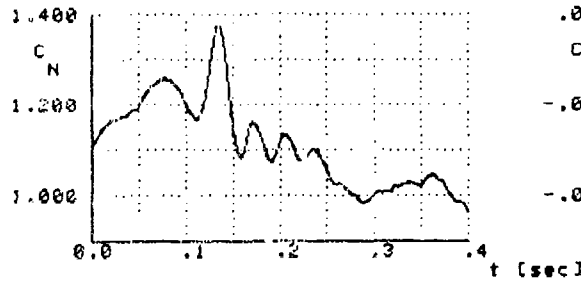


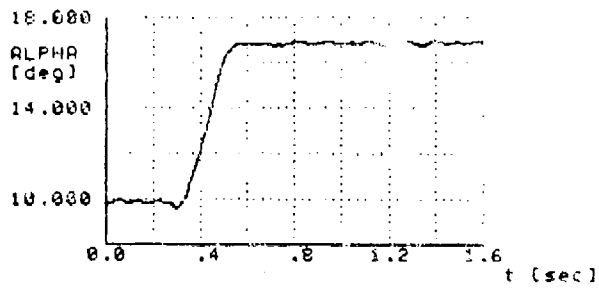




# HALF (1-COS) INPUT NOSE UP

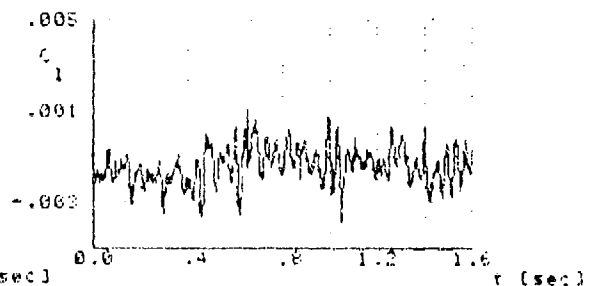
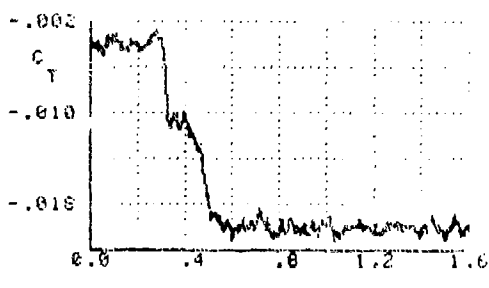
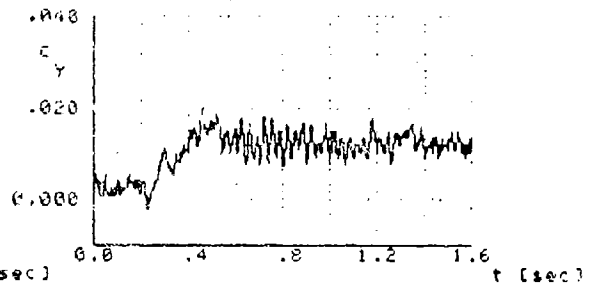
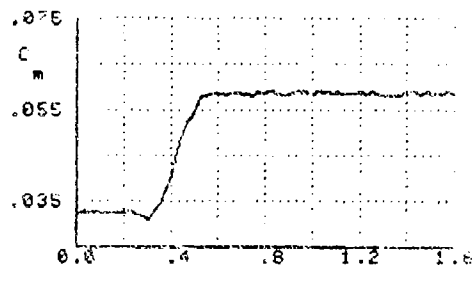
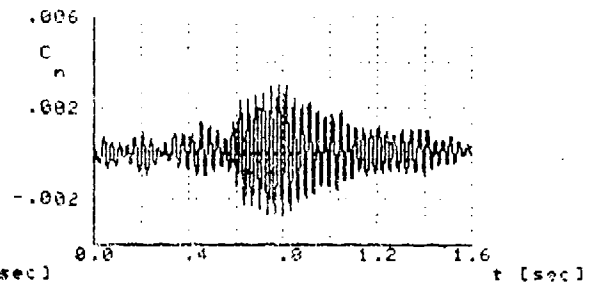
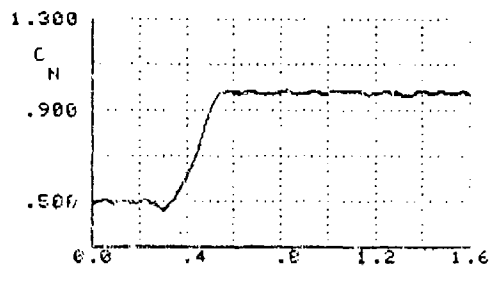
RUN = 3046  
ALPHA<sub>0</sub> = 46 deg  
DRALPHA<sub>0</sub> = 8 deg  
T/2 = 42 msec

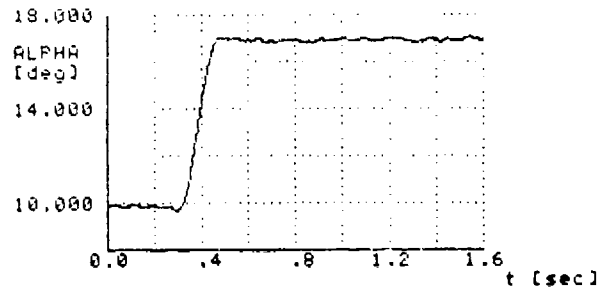




HALF (1-COS) INPUT  
NOSE UP

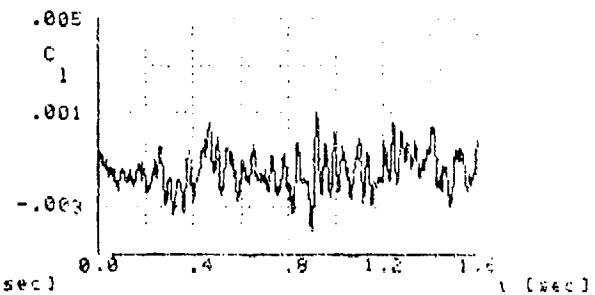
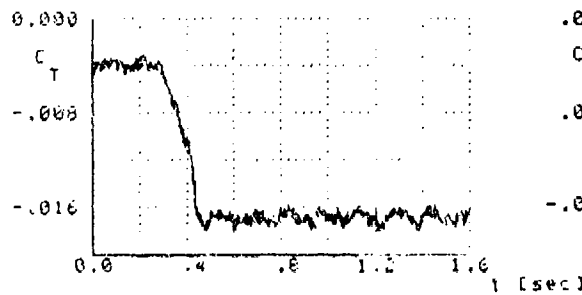
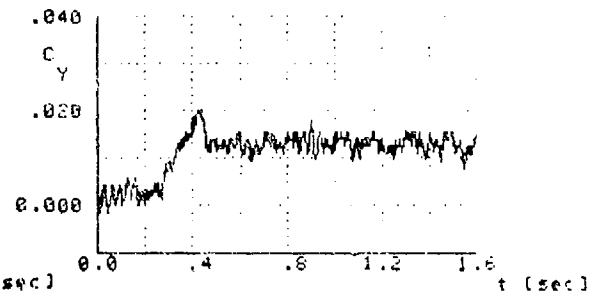
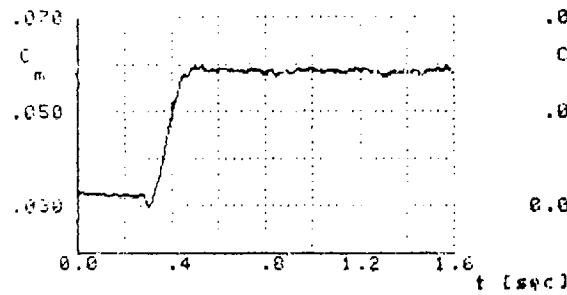
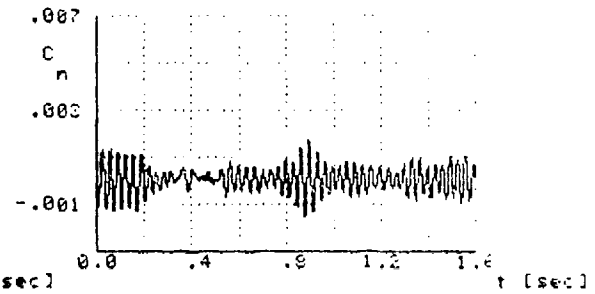
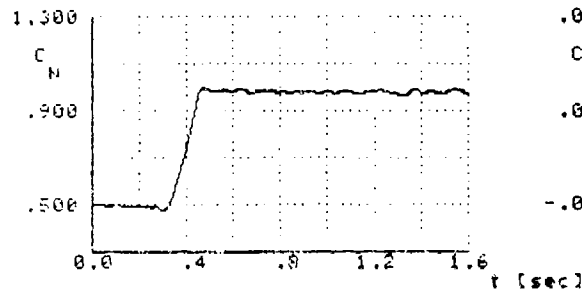
RUN = 3347  
ALPHA<sub>a</sub> = 8 deg  
D<sub>ALPHA</sub><sub>a</sub> = 8 deg  
T/2 = 250 msec

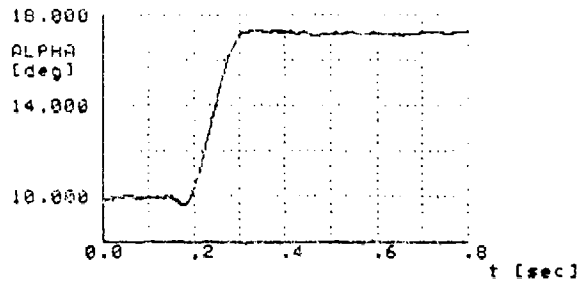




# HALF (1-COS) INPUT NOSE UP

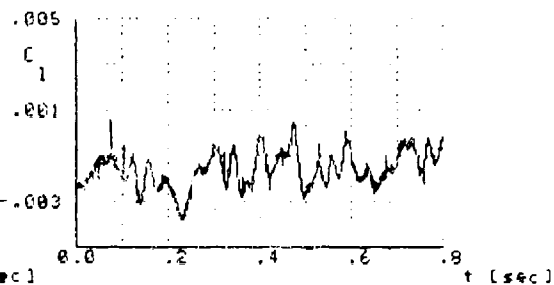
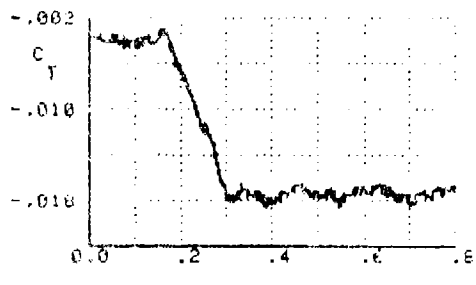
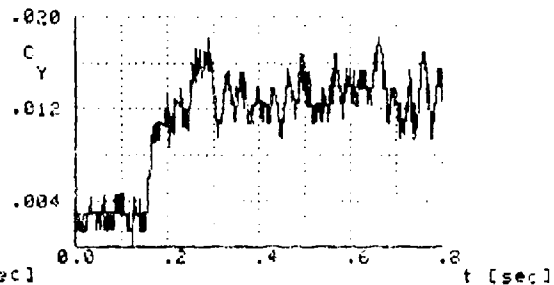
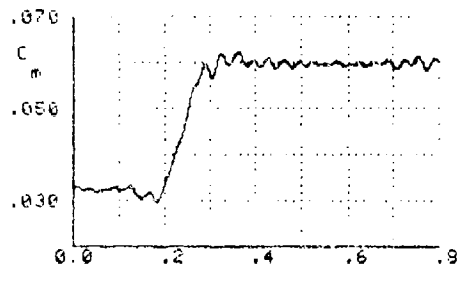
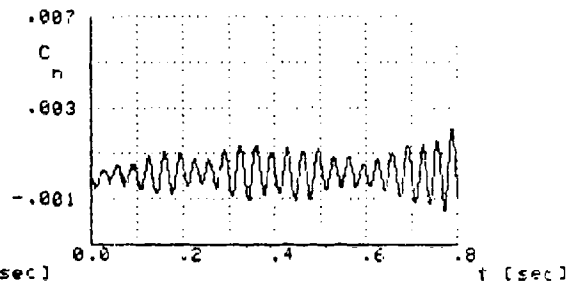
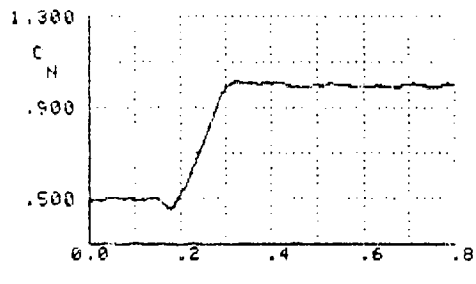
RUN = 3048  
ALPHA<sub>a</sub> = 8 deg  
ΔALPHA<sub>a</sub> = 8 deg  
T/2 = 167 msec

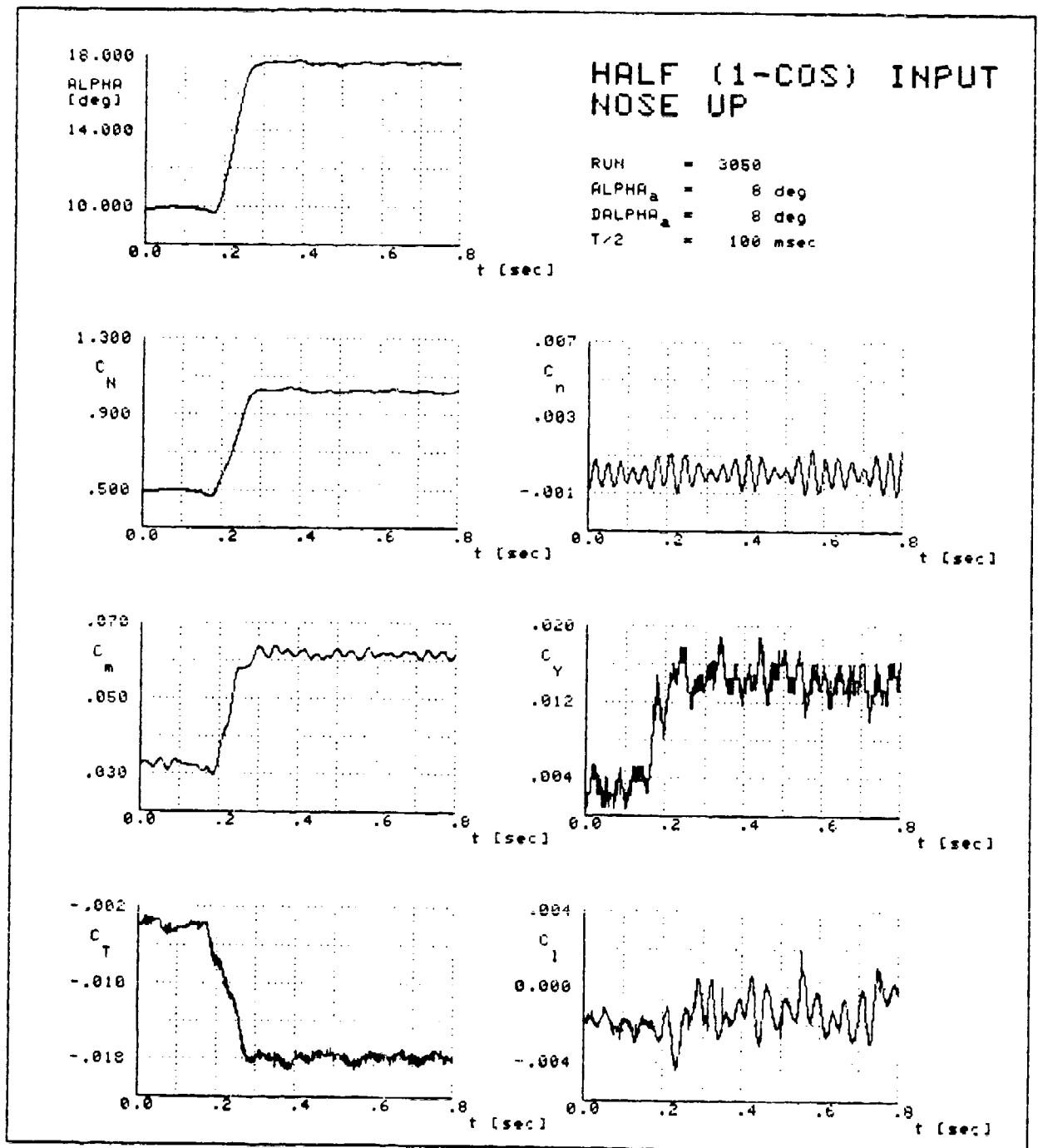


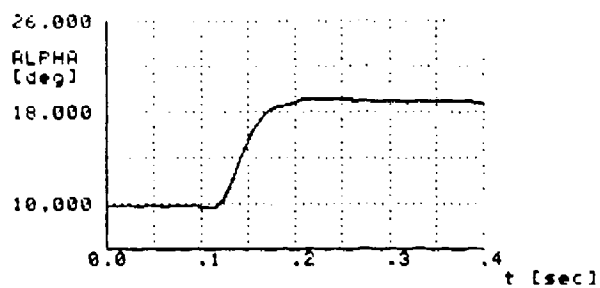


HALF (1-COS) INPUT  
NOSE UP

RUN = 3049  
ALPHA<sub>a</sub> = 8 deg  
DALPHA<sub>a</sub> = 8 deg  
T/2 = 125 msec

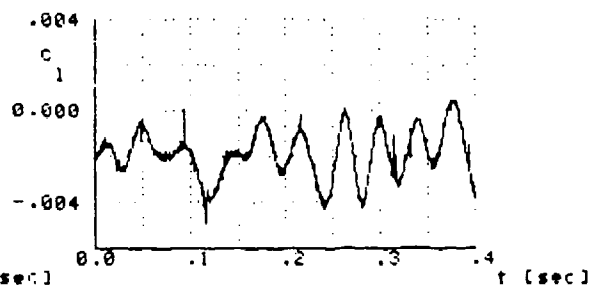
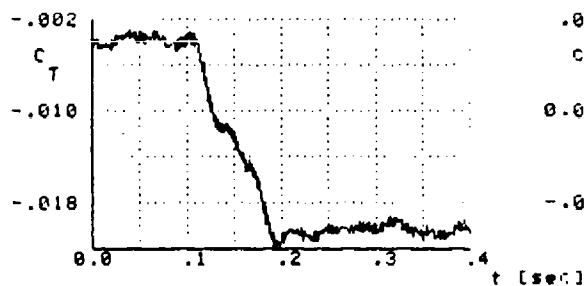
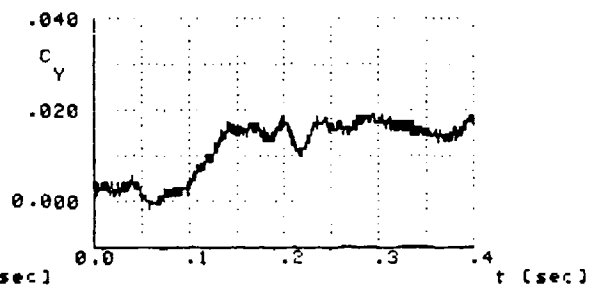
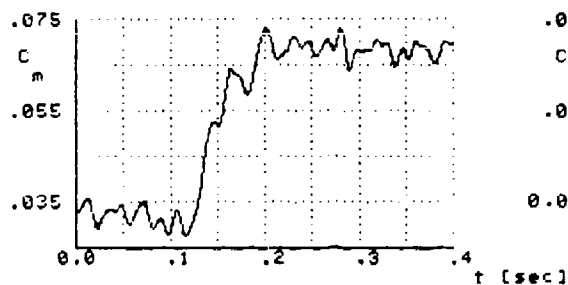
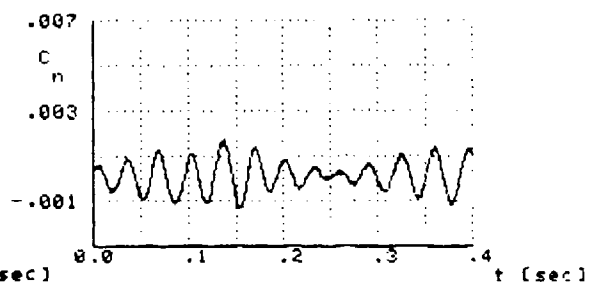
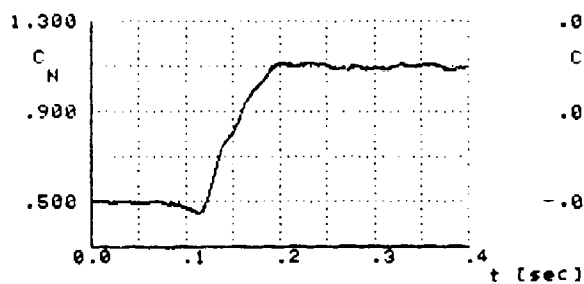


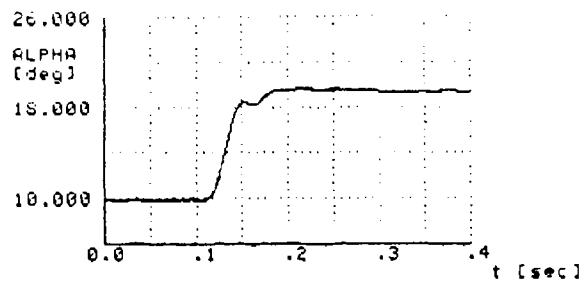




# HALF (1-COS) INPUT NOSE UP

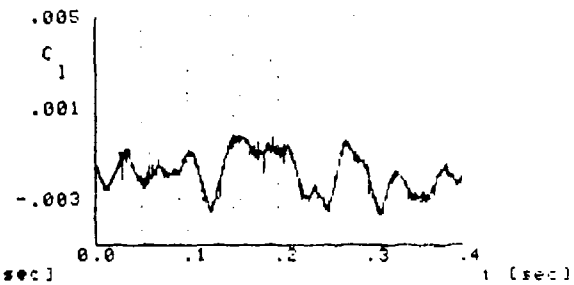
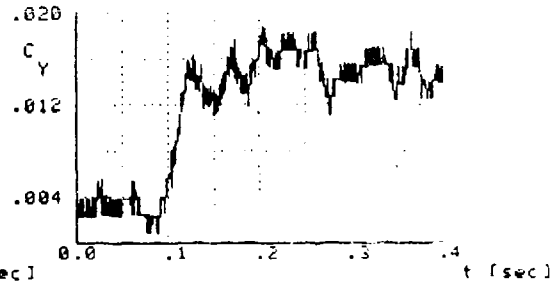
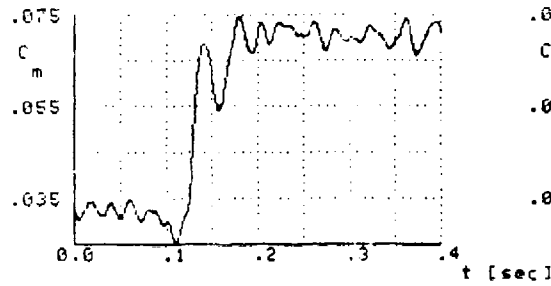
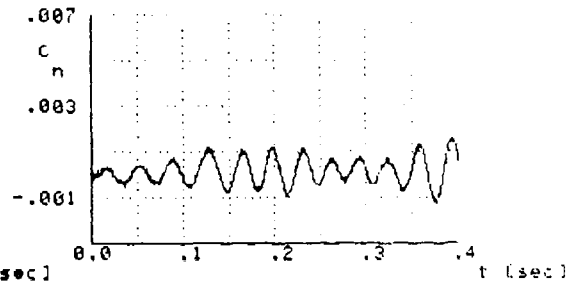
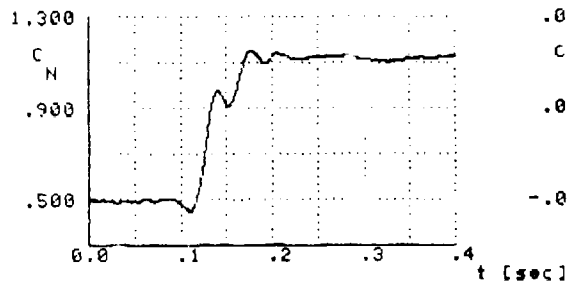
RUN = 3051  
ALPHA<sub>a</sub> = 2 deg  
DALPHA<sub>a</sub> = 8 deg  
T/2 = 63 msec

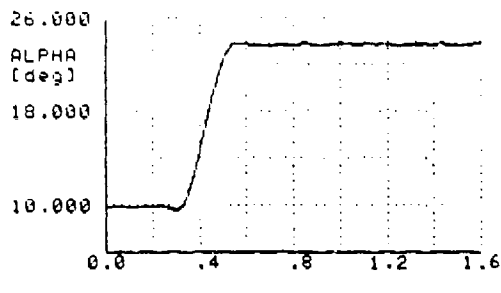




# HALF (1-COS) INPUT NOSE UP

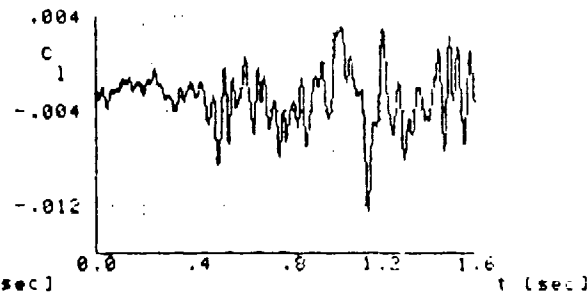
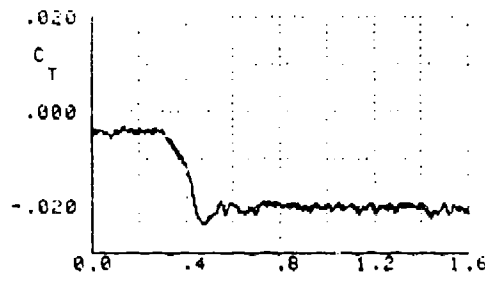
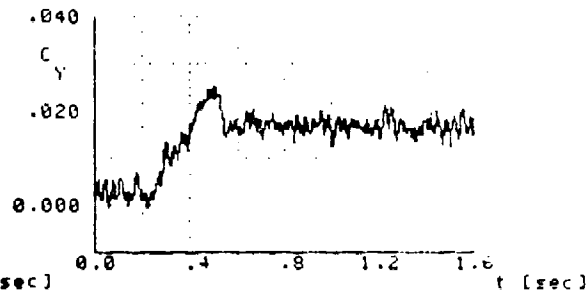
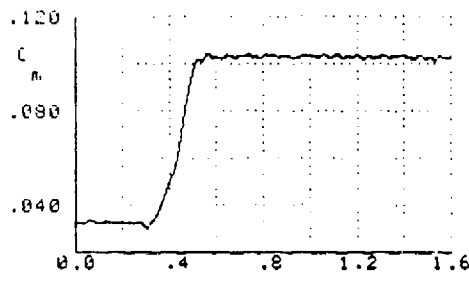
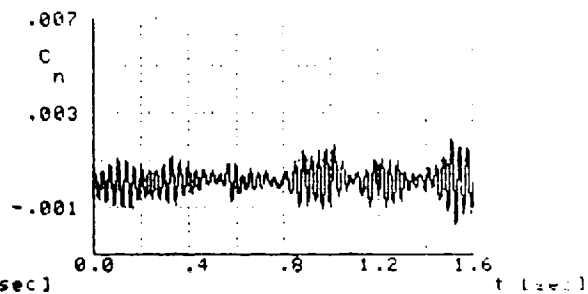
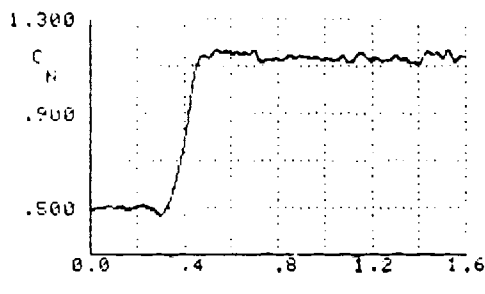
RUN = 3052  
ALPHA<sub>a</sub> = 8 deg  
DALPHA<sub>a</sub> = 8 deg  
T/2 = 42 msec



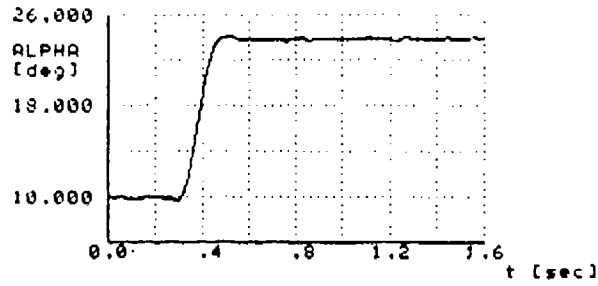


HALF (1-COS) INPUT  
NOSE UP

RUN = 3053  
ALPHA<sub>0</sub> = 8 deg  
DRALPHA<sub>0</sub> = 16 deg  
T/2 = 260 msec

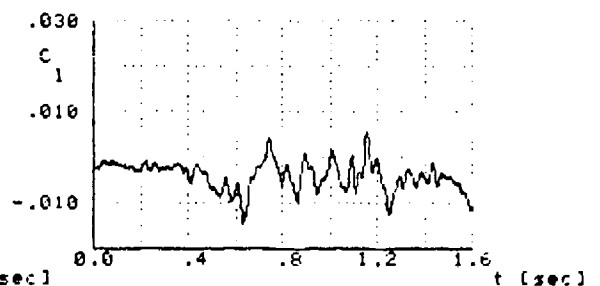
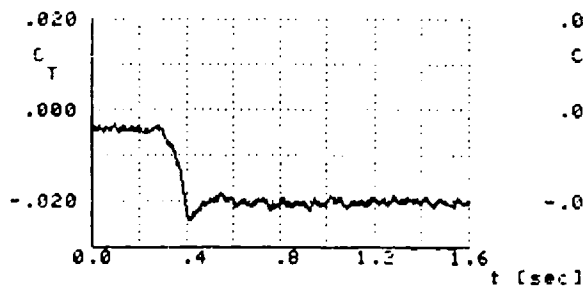
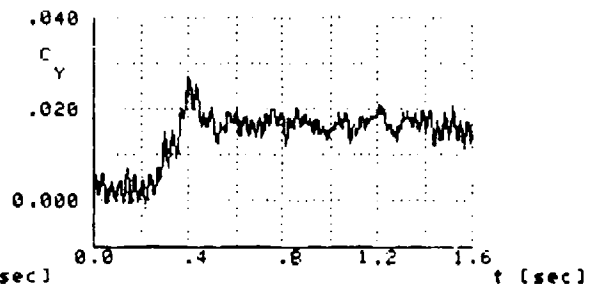
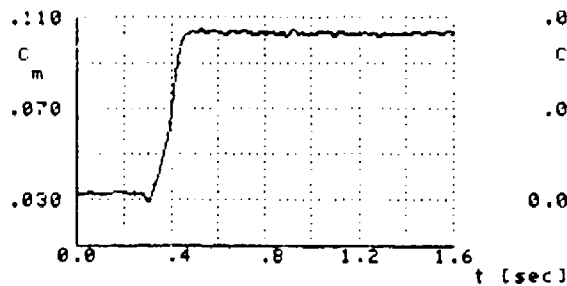
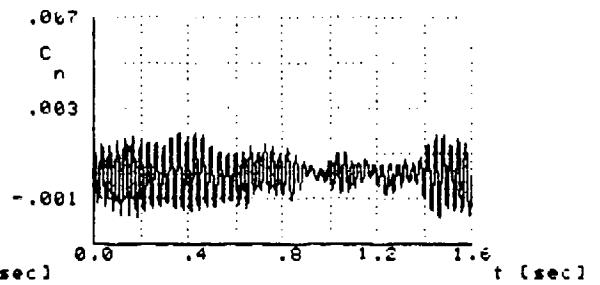
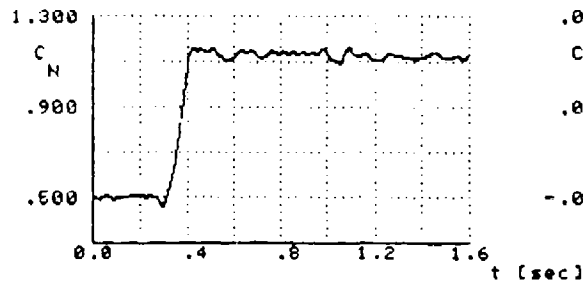


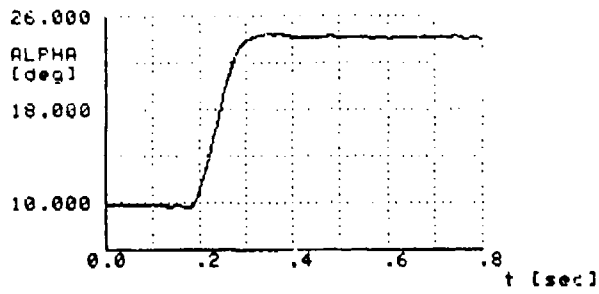




HALF (1-COS) INPUT  
NOSE UP

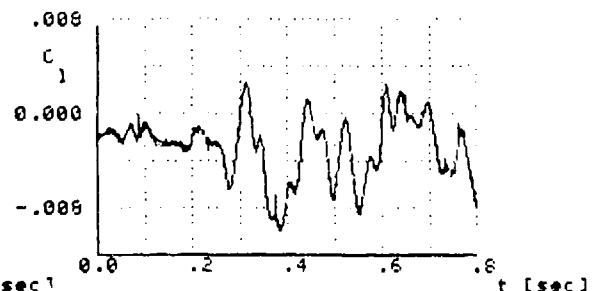
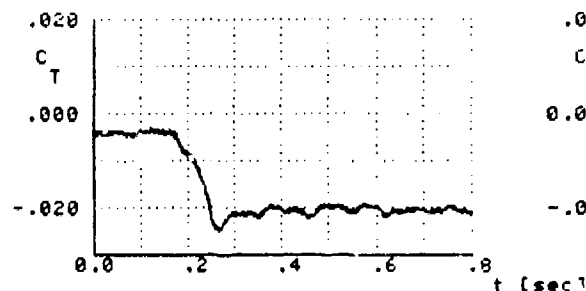
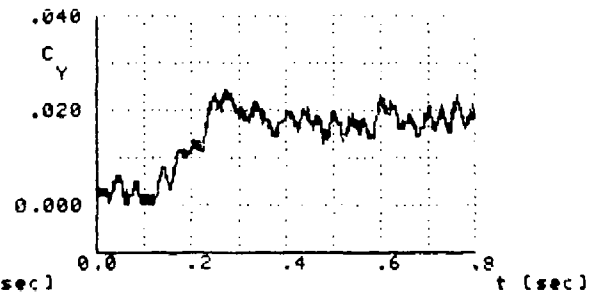
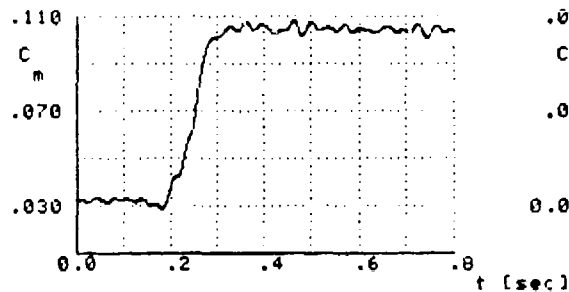
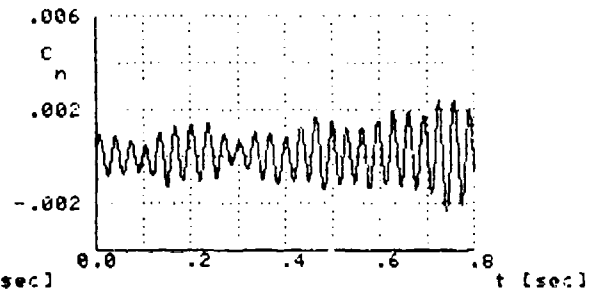
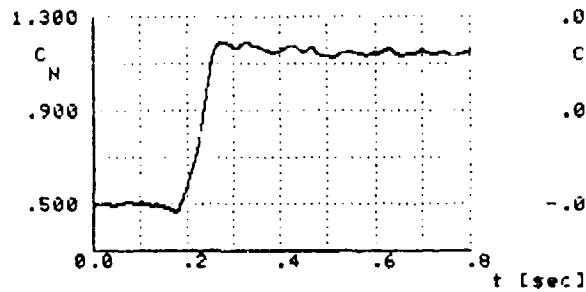
RUN = 3054  
ALPHA<sub>0</sub> = 8 deg  
DALPHA<sub>0</sub> = 16 deg  
T/2 = 167 msec

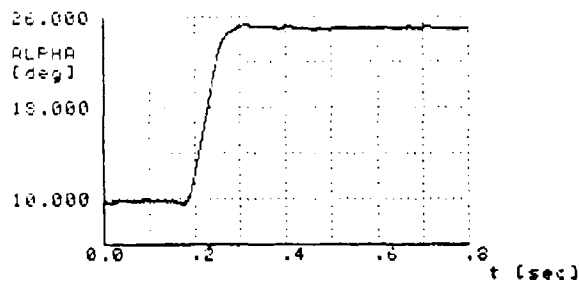




# HALF (1-COS) INPUT NOSE UP

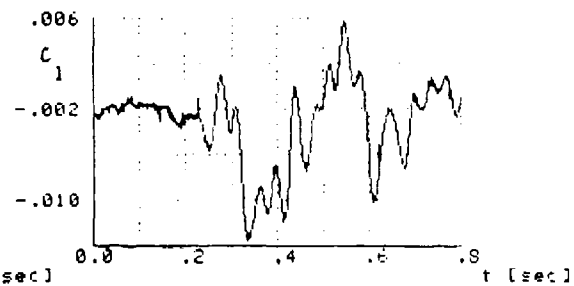
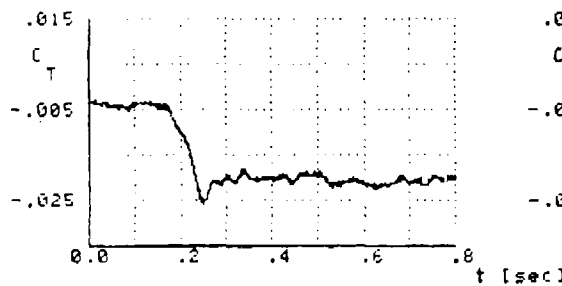
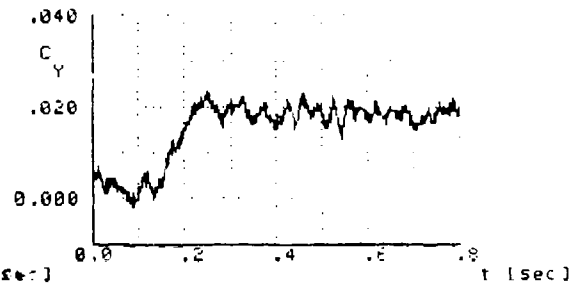
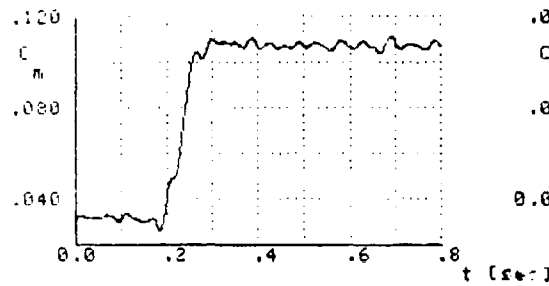
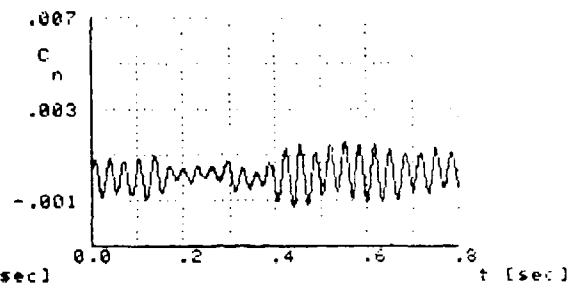
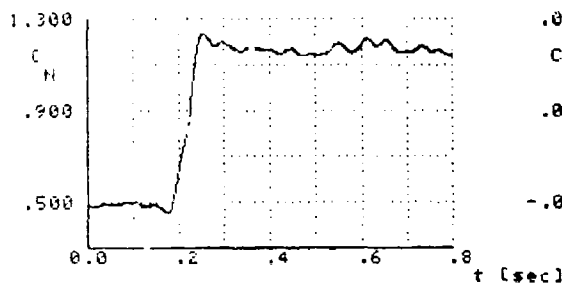
RUN = 3055  
 $\text{ALPHA}_0$  = 8 deg  
 $\text{DALPHA}_0$  = 16 deg  
 $T/2$  = 125 msec

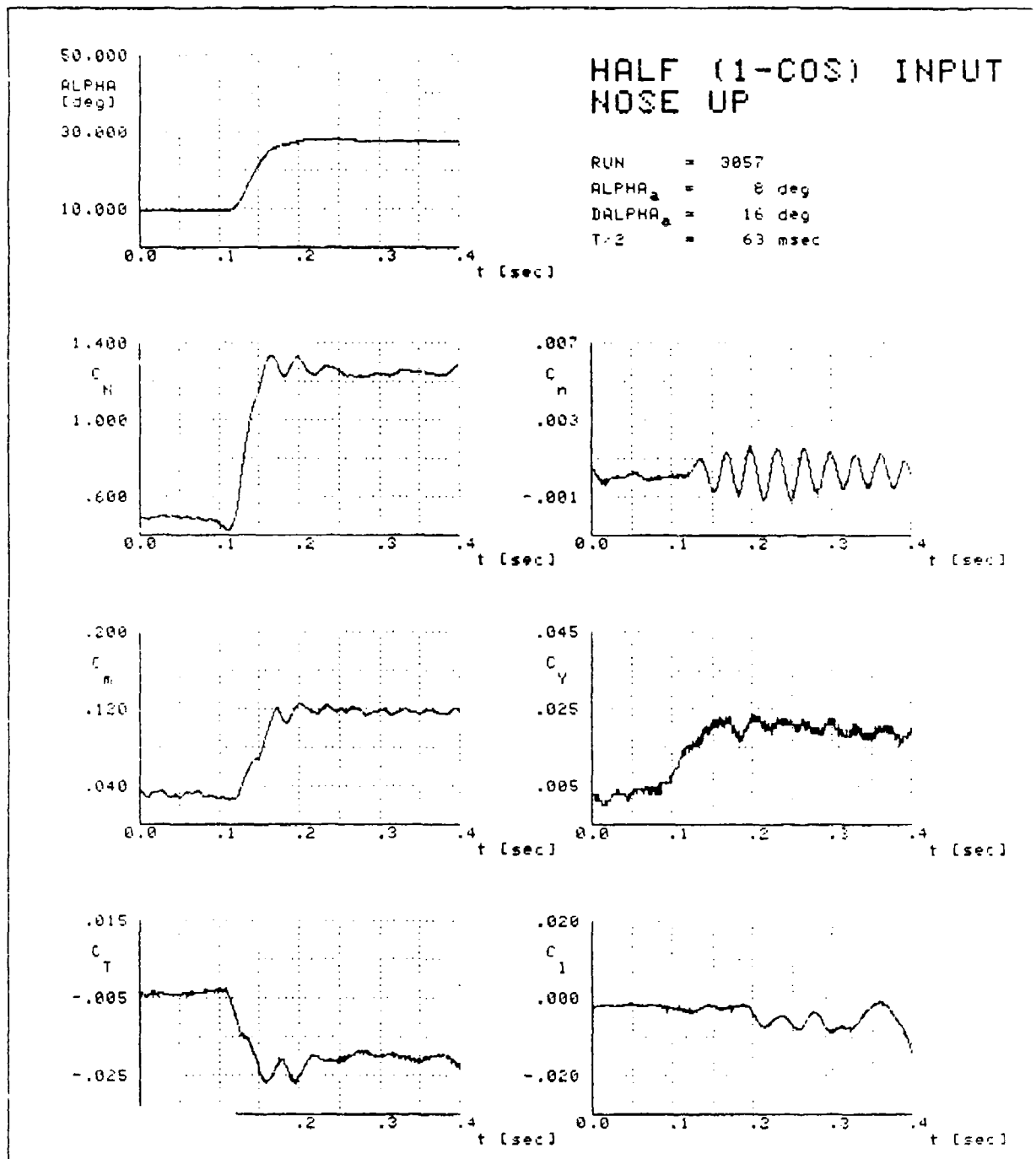


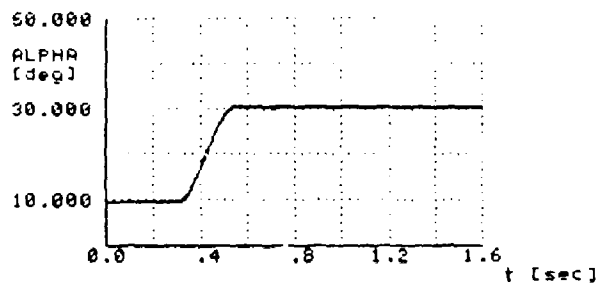


# HALF (1-COS) INPUT NOSE UP

RUN = 3056  
 ALPHA<sub>a</sub> = 8 deg  
 DALPHA<sub>a</sub> = 16 deg  
 T/2 = 100 msec

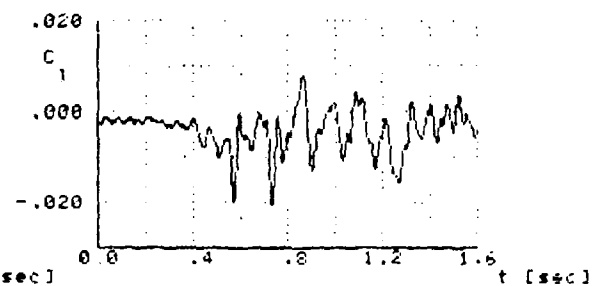
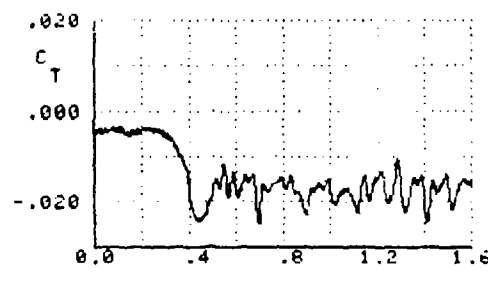
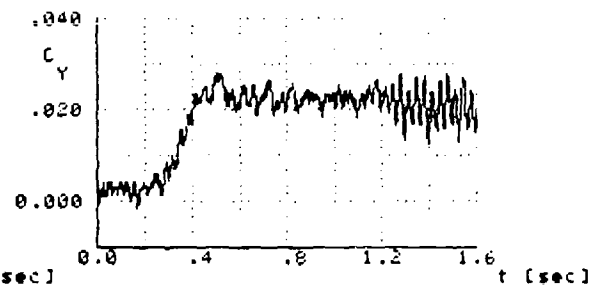
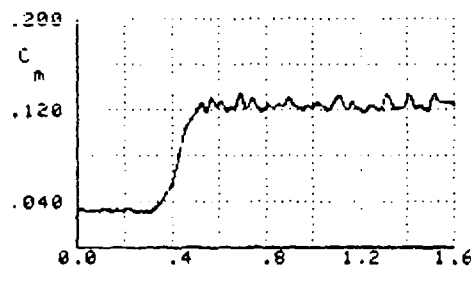
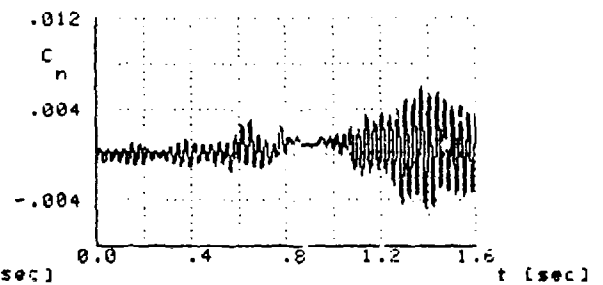
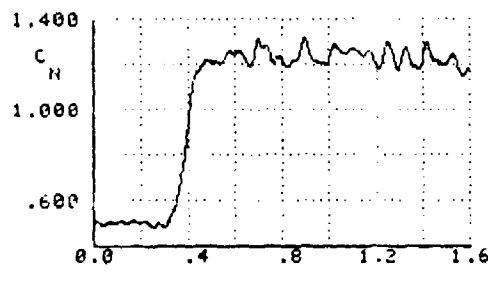


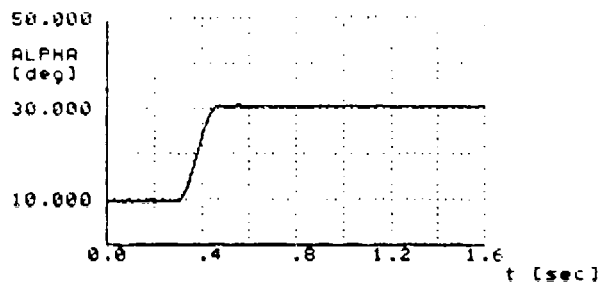




# HALF (1-COS) INPUT NOSE UP

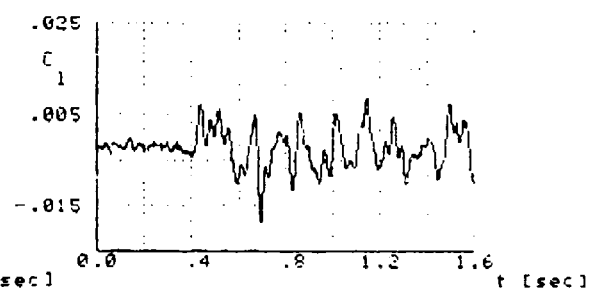
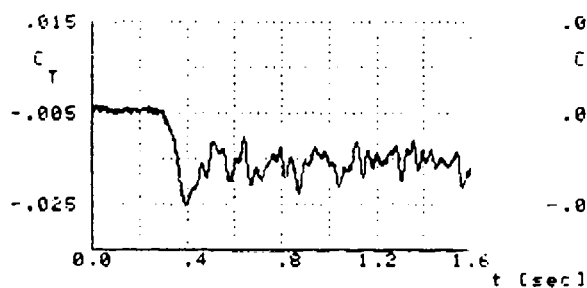
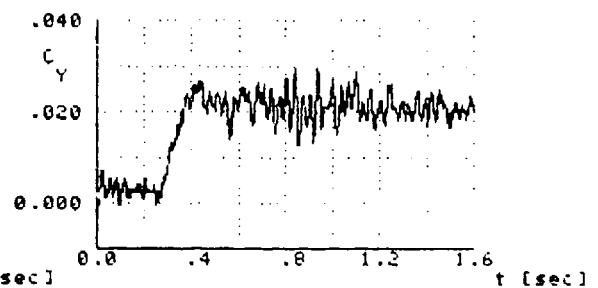
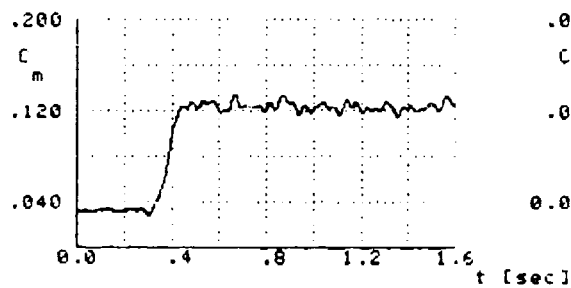
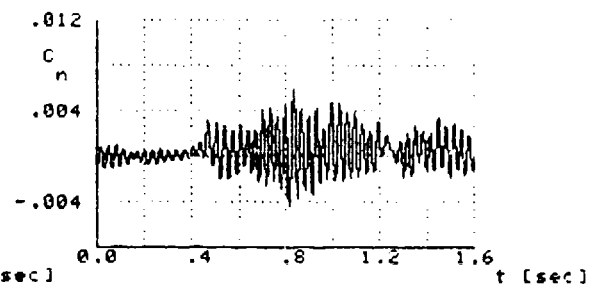
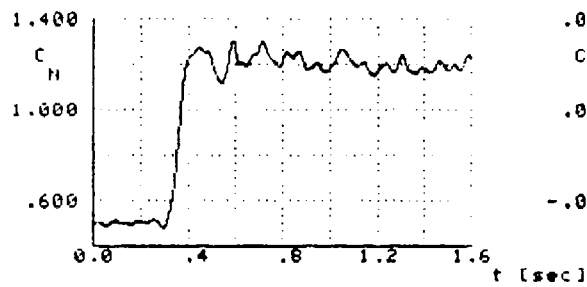
RUN = 3058  
 ALPHA<sub>a</sub> = 8 deg  
 DALPHA<sub>a</sub> = 24 deg  
 T/2 = 250 msec

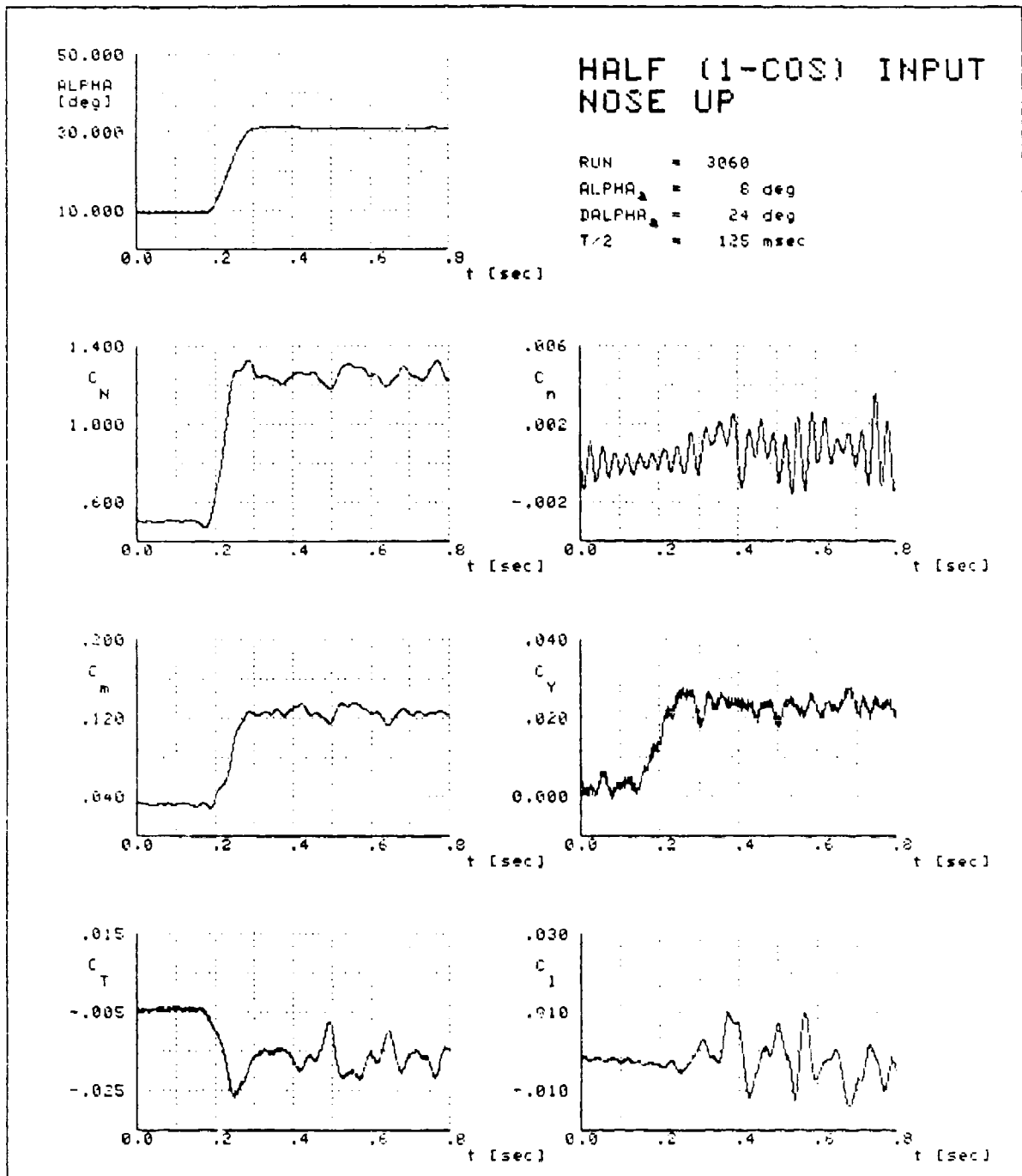


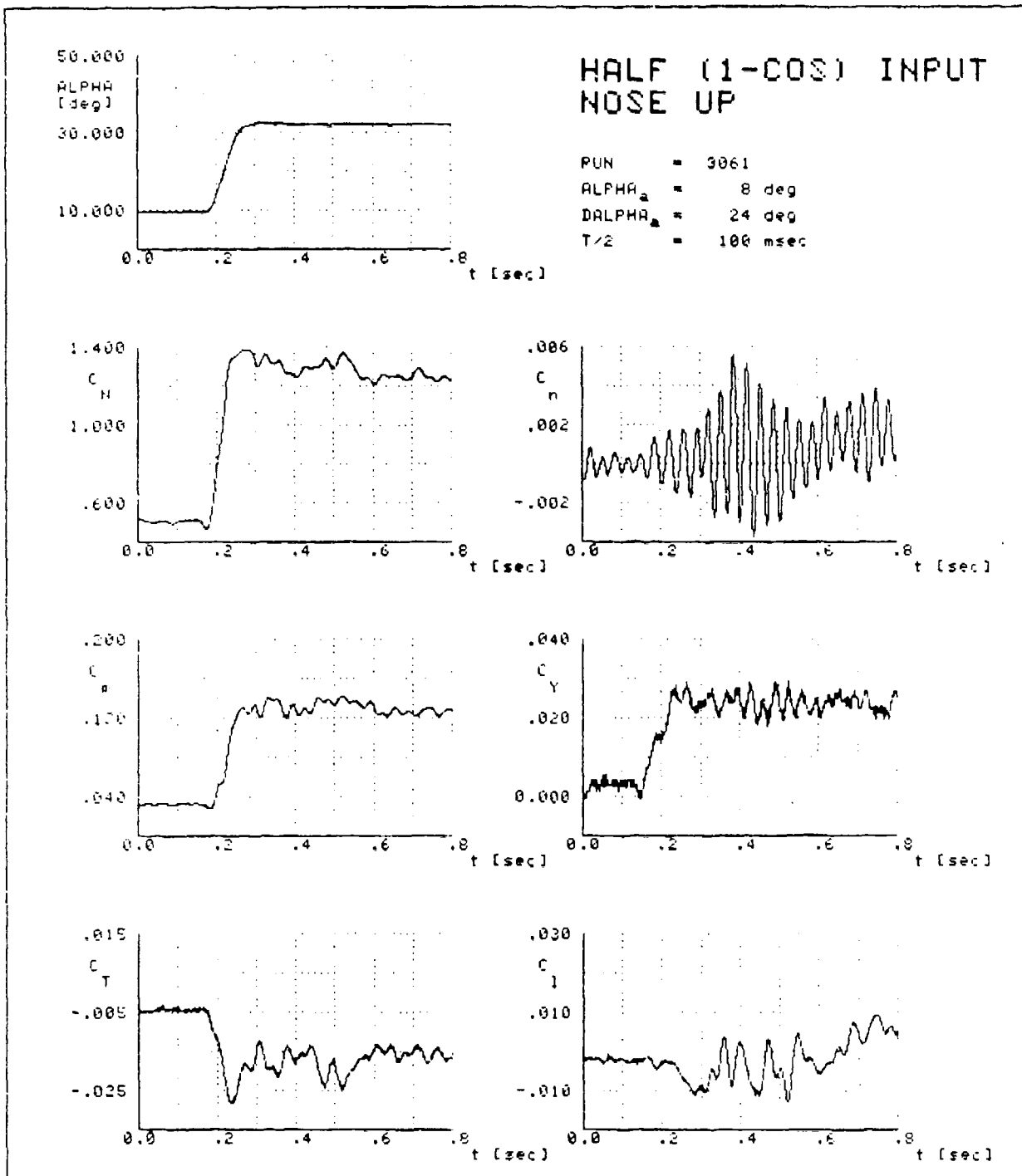


HAL (1-COS) INPUT  
NOSE UP

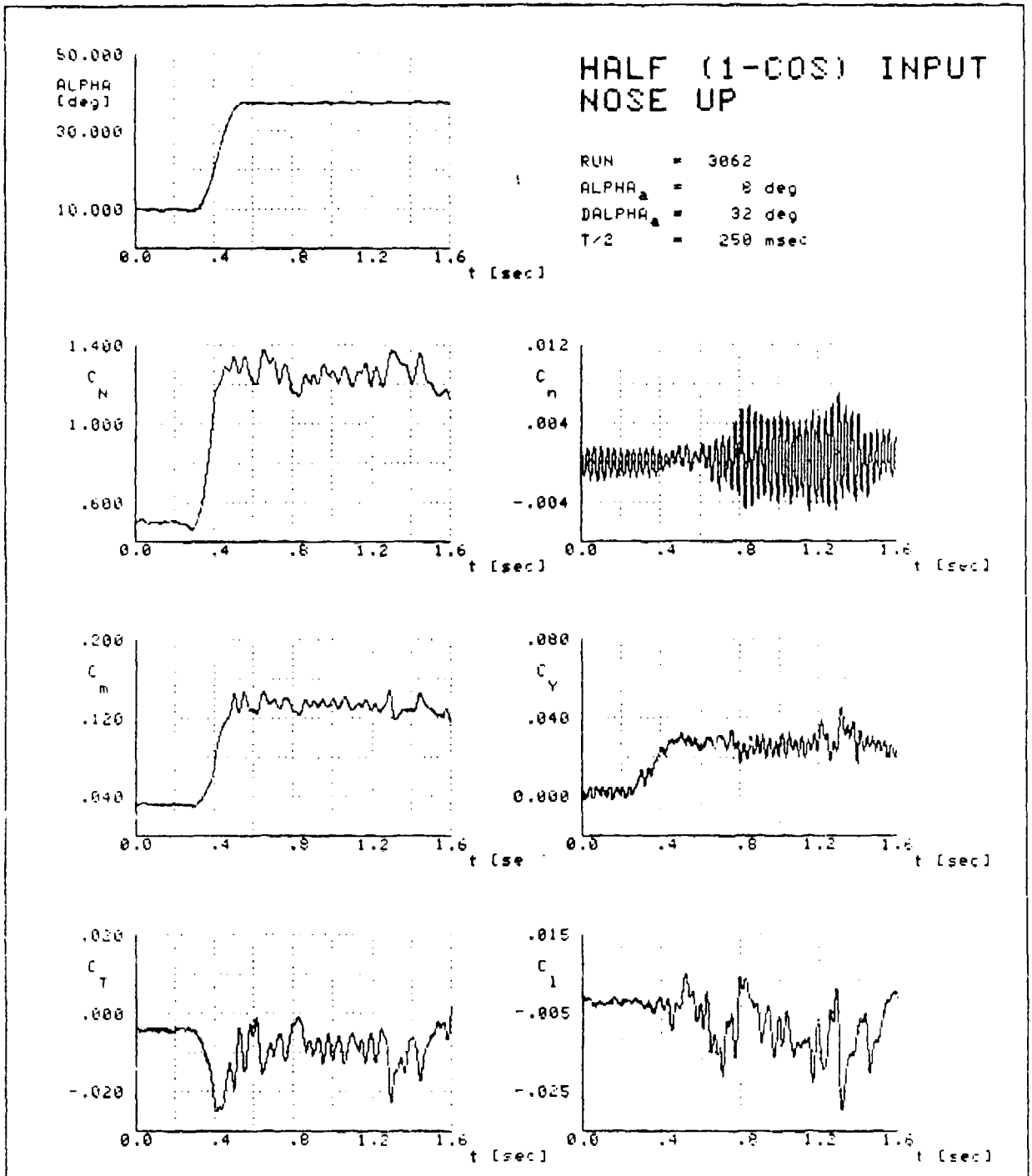
RUN = 3059  
ALPHA<sub>0</sub> = 8 deg  
ΔALPHA = 24 deg  
T/2 = 167 msec

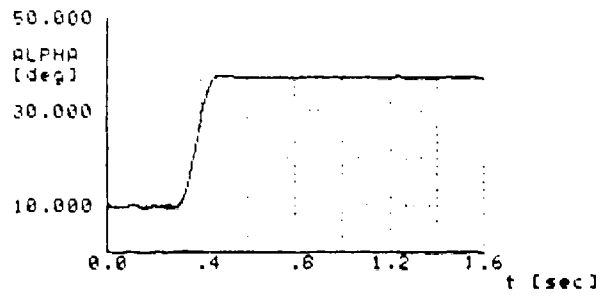






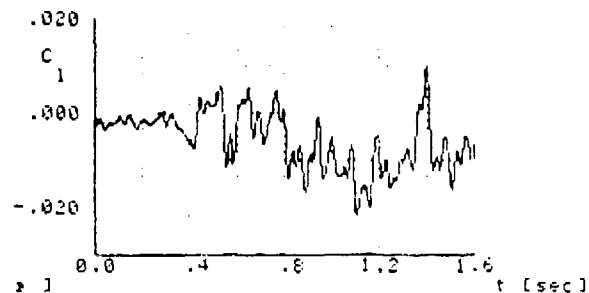
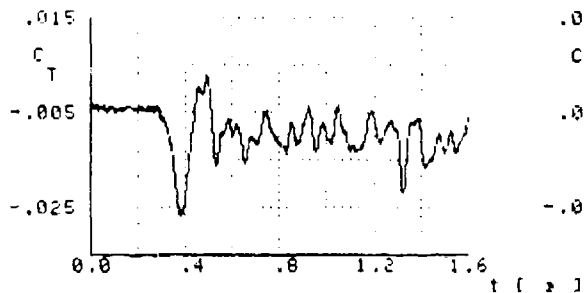
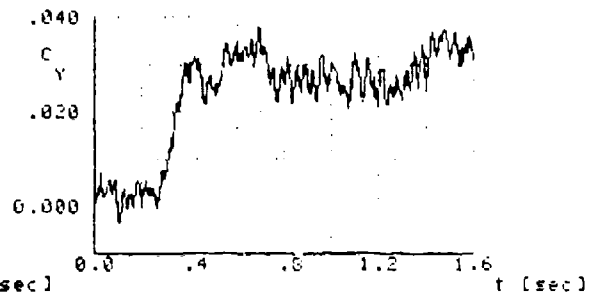
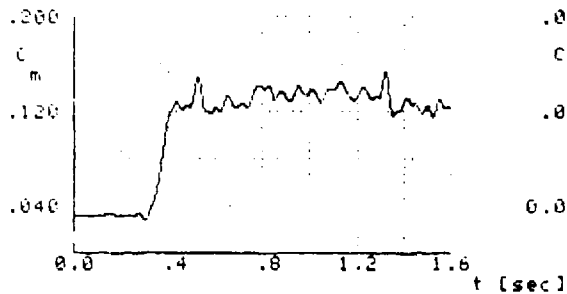
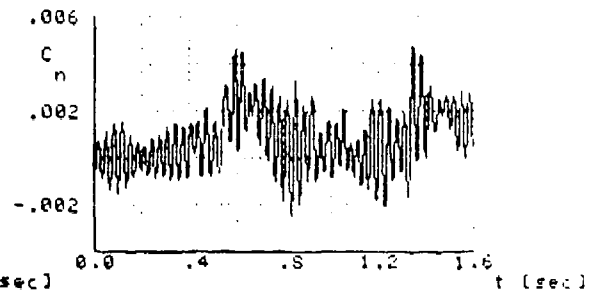
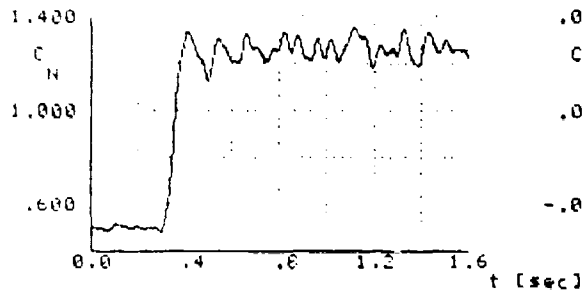


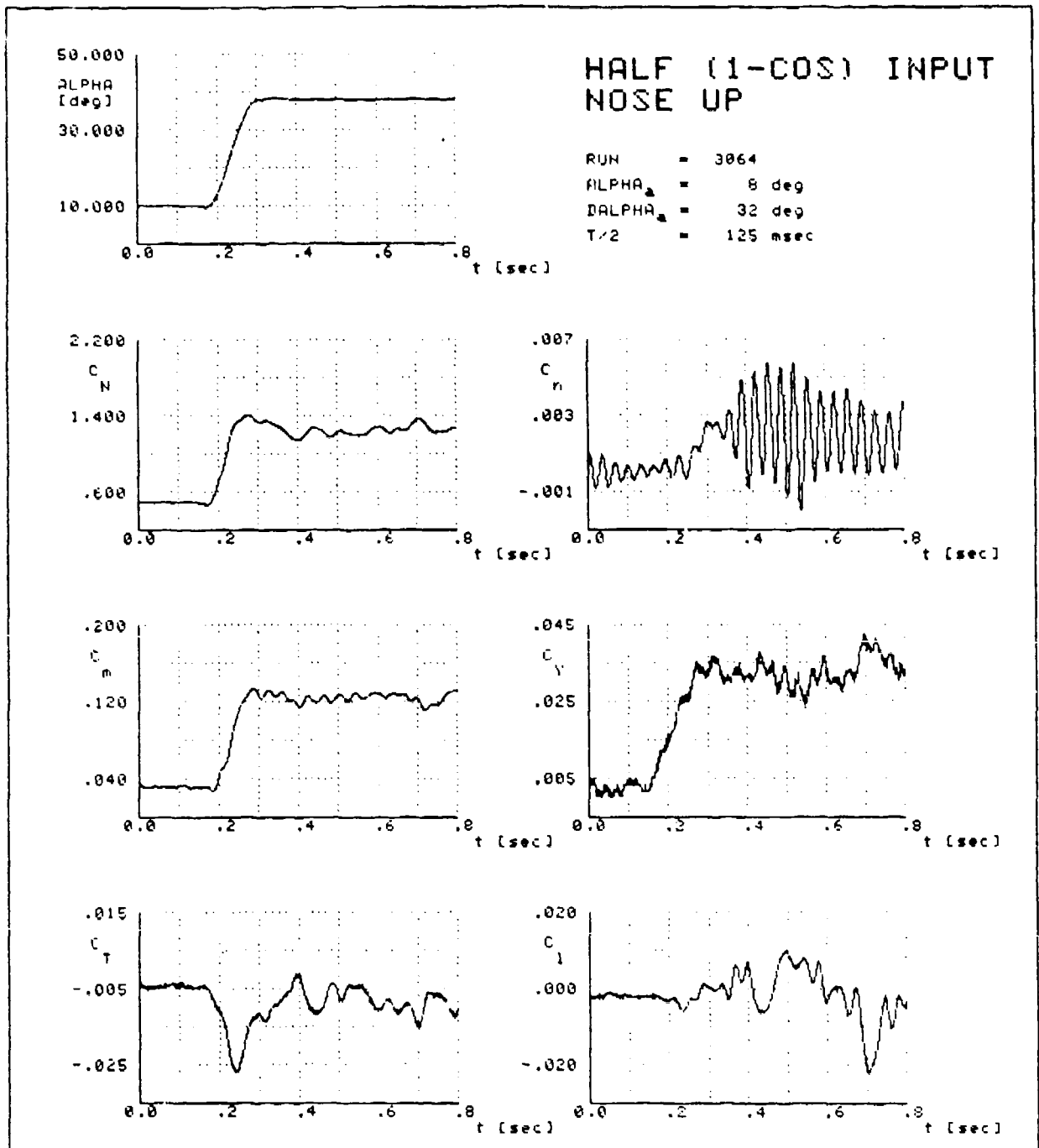


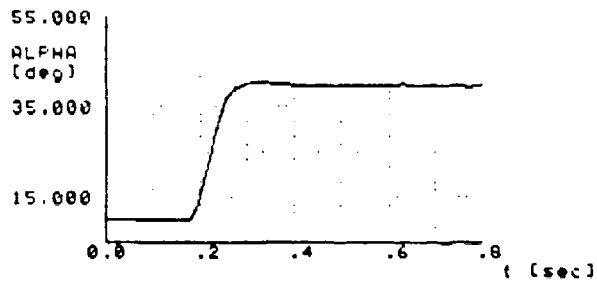


# HALF (1-COS) INPUT NOSE UP

RUN = 3063  
 ALPHA<sub>0</sub> = 8 deg  
 DALPHA<sub>0</sub> = 32 deg  
 T/2 = 167 msec

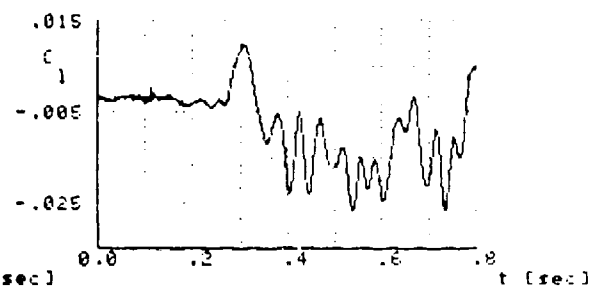
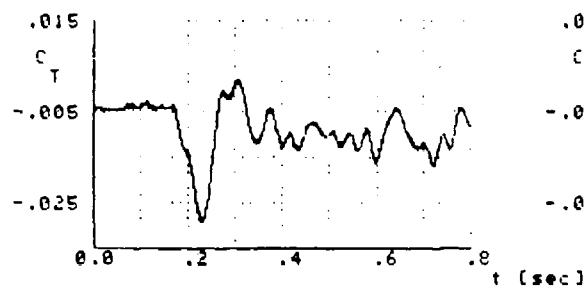
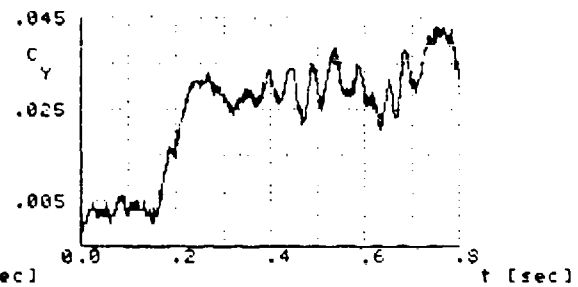
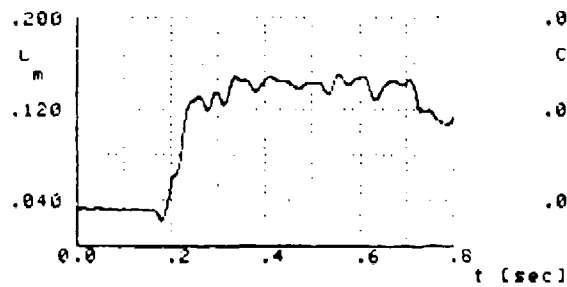
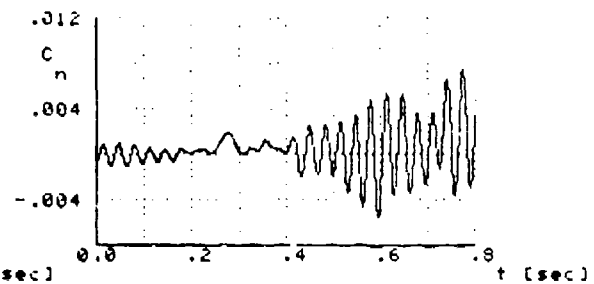
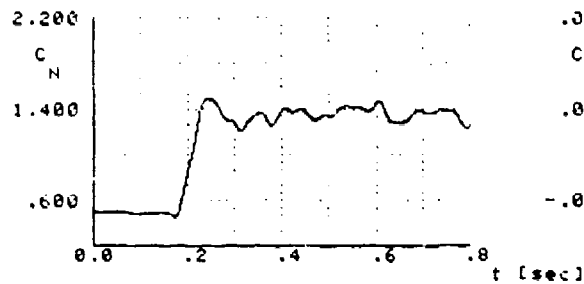


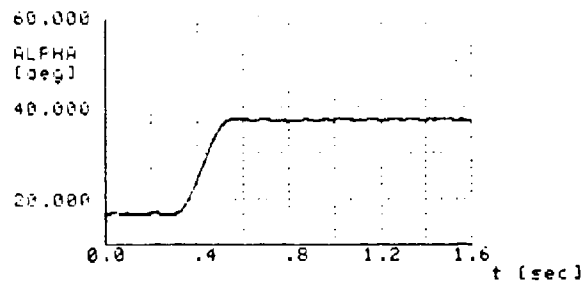




# HALF (1-COS) INPUT NOSE UP

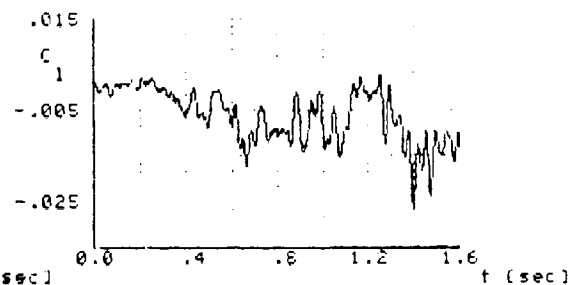
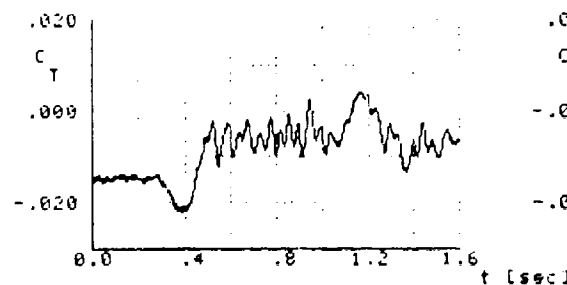
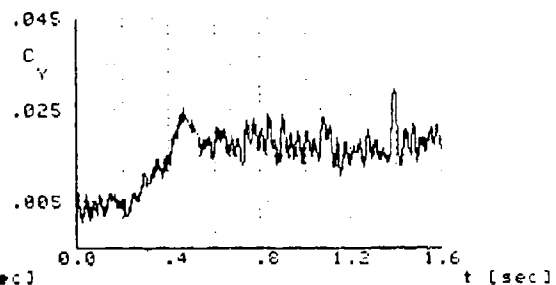
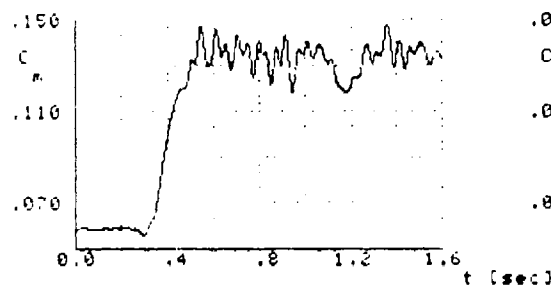
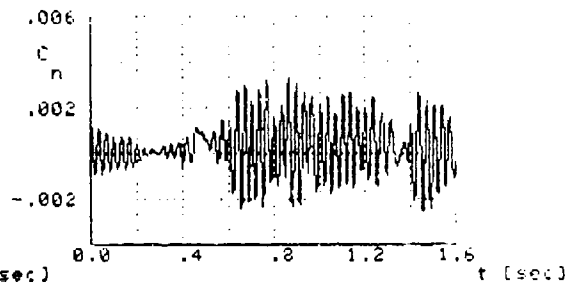
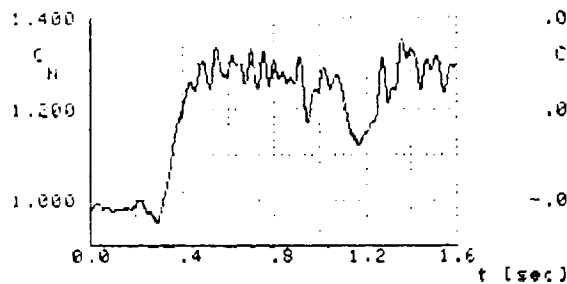
RUN = 3865  
ALPHA = 8 deg  
DALPHA = 32 deg  
T/2 = 100 msec

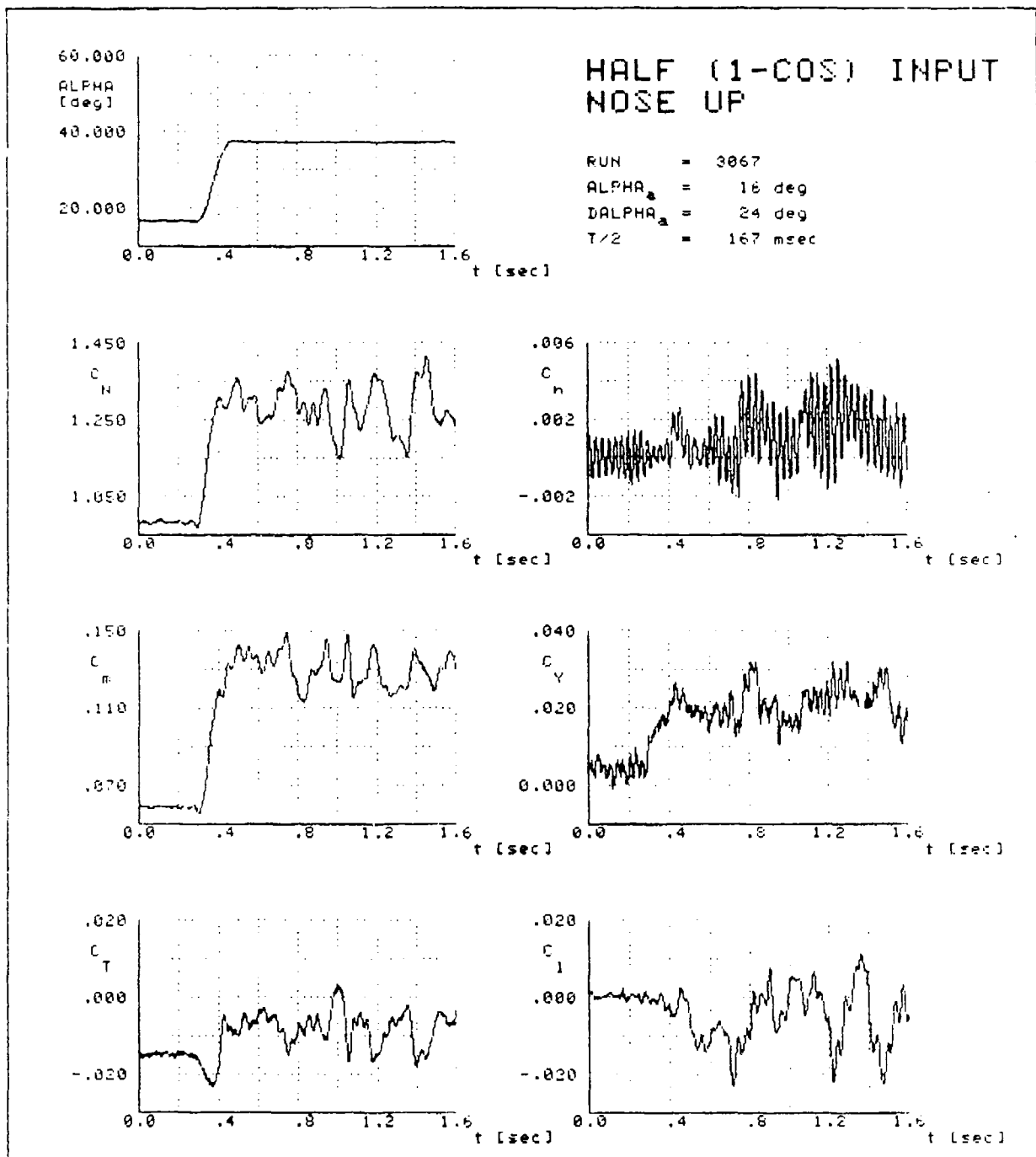


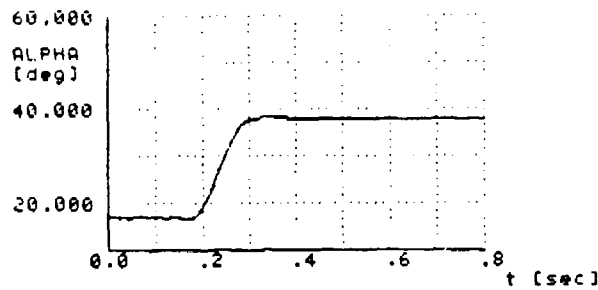


# HALF (1-COS) INPUT NOISE UP

RUN = 3066  
 ALPHA<sub>0</sub> = 16 deg  
 DALPHA<sub>0</sub> = 24 deg  
 T/2 = 250 msec

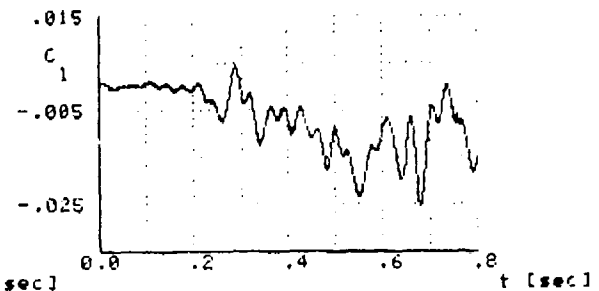
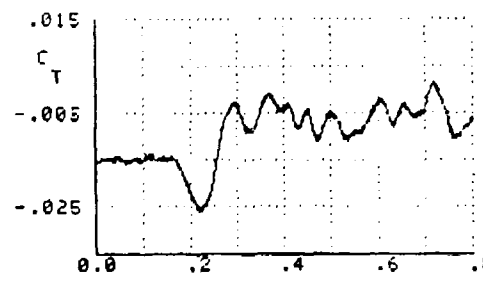
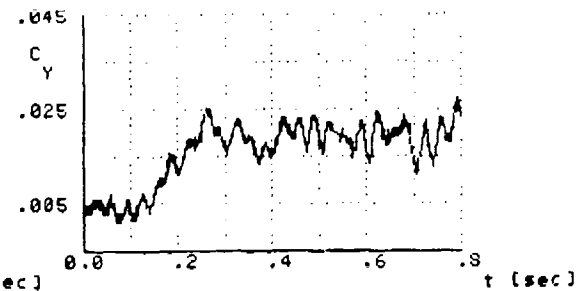
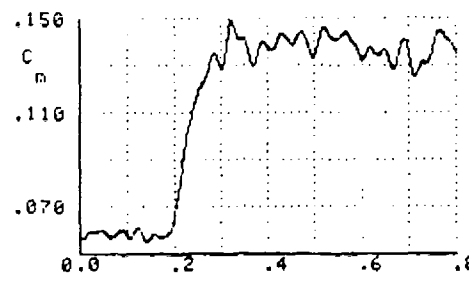
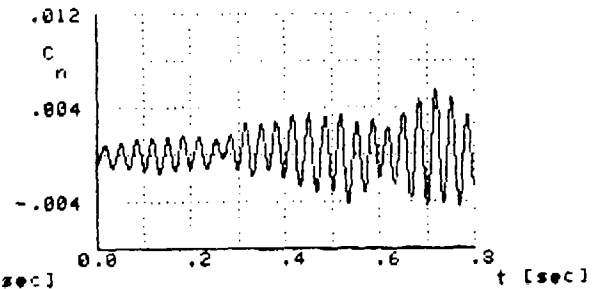
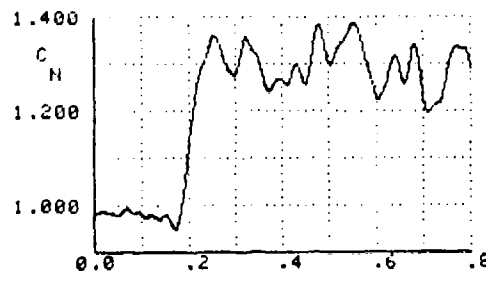


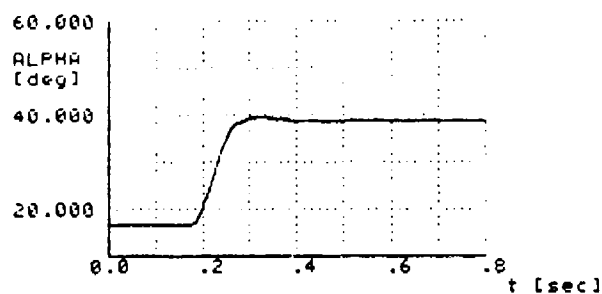




# HALF (1-COS) INPUT NOSE UP

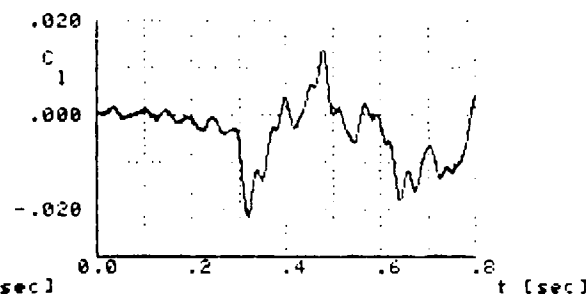
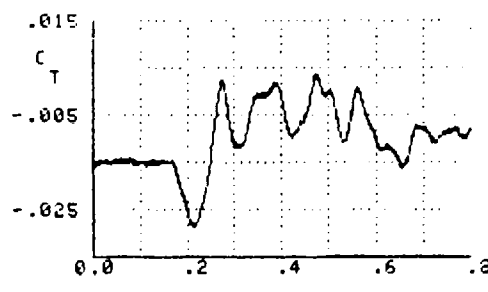
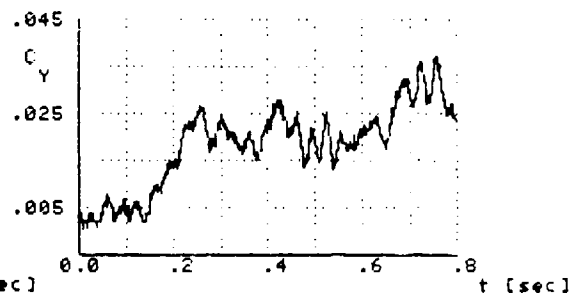
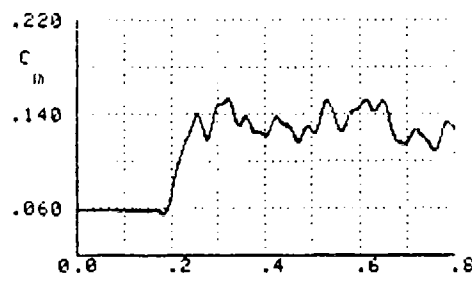
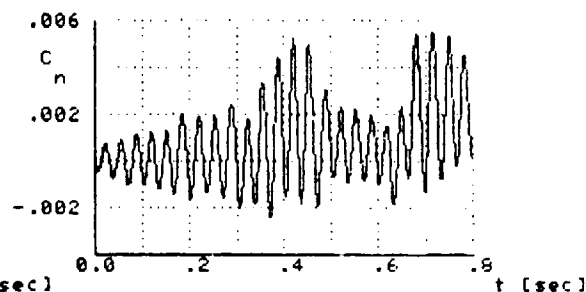
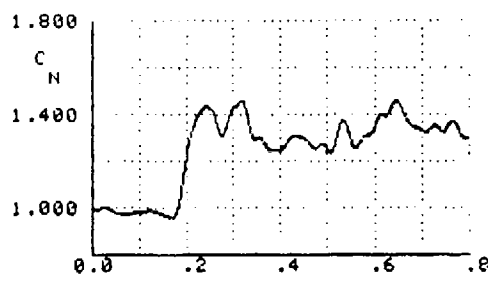
RUN = 3068  
ALPHA<sub>a</sub> = 16 deg  
DALPHA<sub>a</sub> = 24 deg  
T/2 = 125 msec



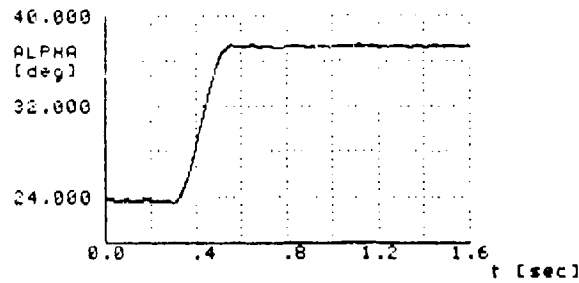


# HALF (1-COS) INPUT NOISE UP

RUN = 3069  
ALPHA<sub>A</sub> = 16 deg  
DALPHA<sub>A</sub> = 24 deg  
T/2 = 100 msec

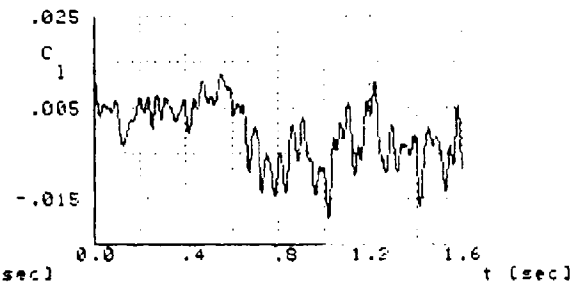
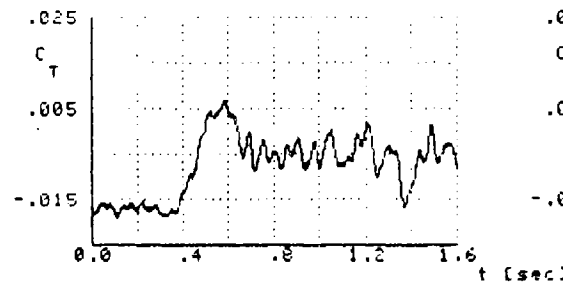
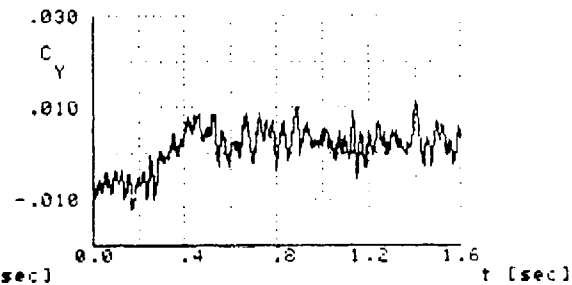
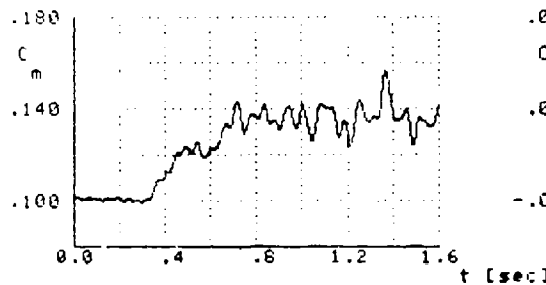
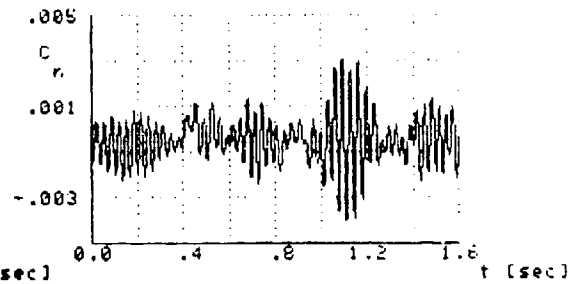
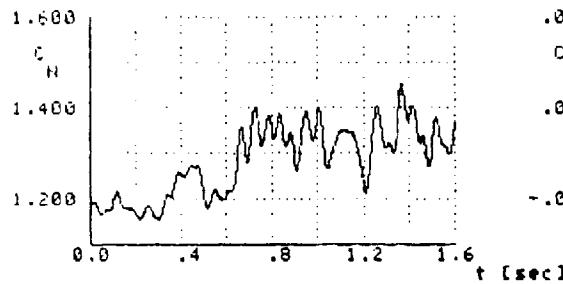


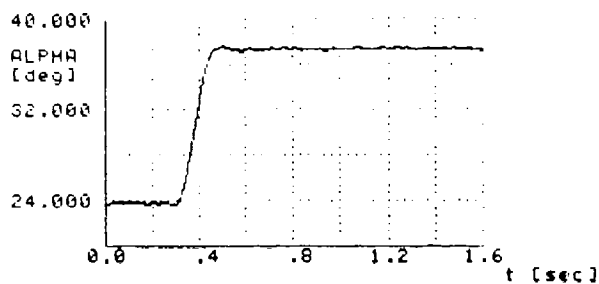




# HALF (1-COS) INPUT NOISE UP

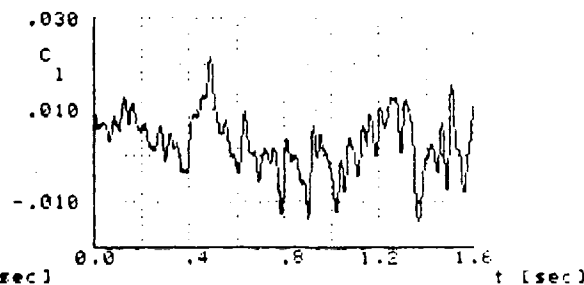
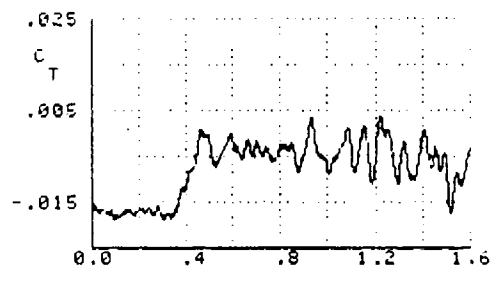
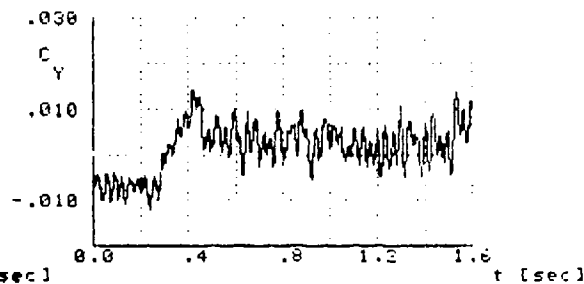
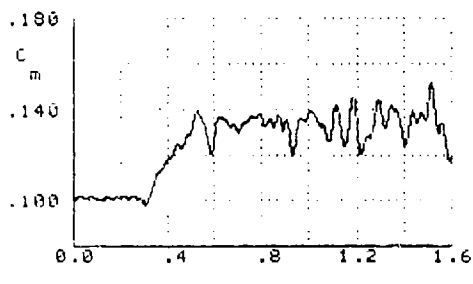
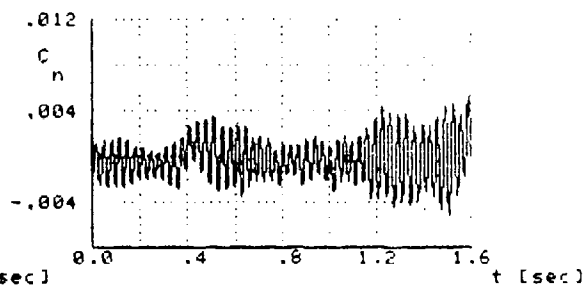
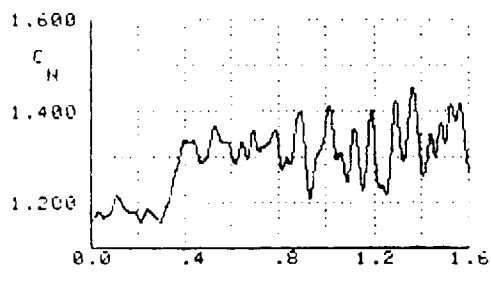
RUN = 3070  
 $\alpha_a$  = 24 deg  
 $\Delta\alpha_a$  = 16 deg  
 $T/2$  = 250 msec

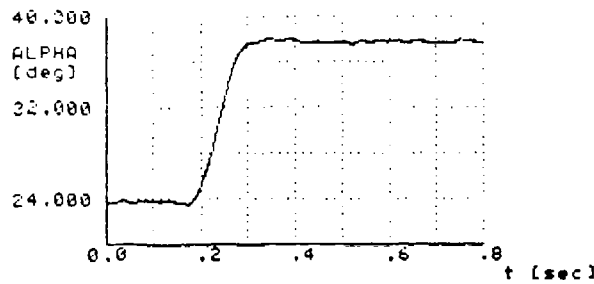




# HALF (1-COS) INPUT NOSE UP

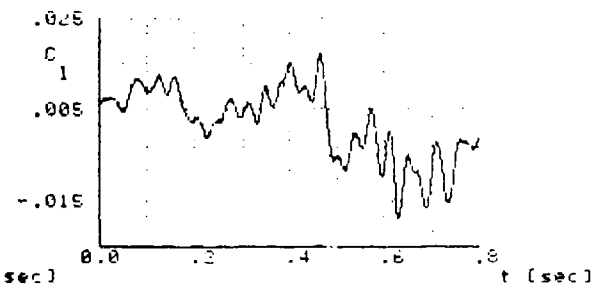
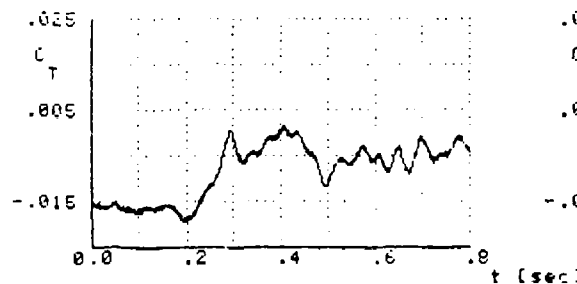
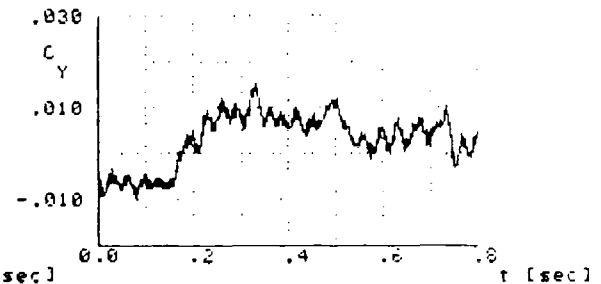
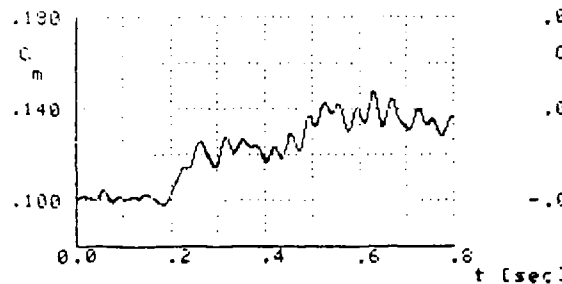
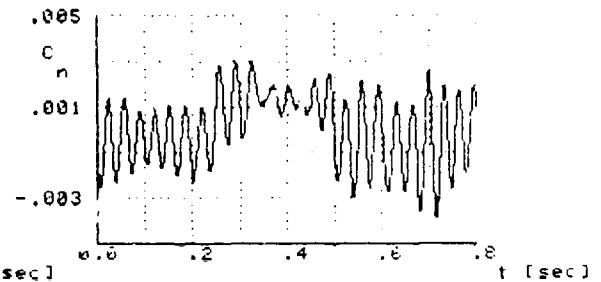
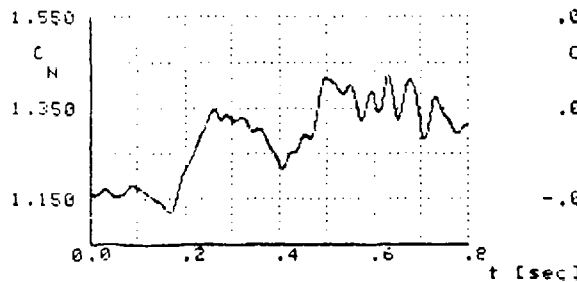
RUN = 3071  
 ALPHA<sub>a</sub> = 24 deg  
 DIALPHA<sub>a</sub> = 16 deg  
 T/2 = 167 msec

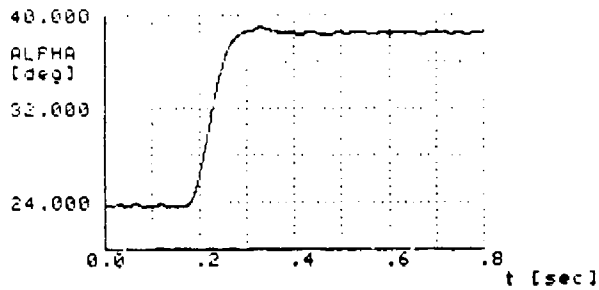




# HALF (1-COS) INPUT NOSE UP

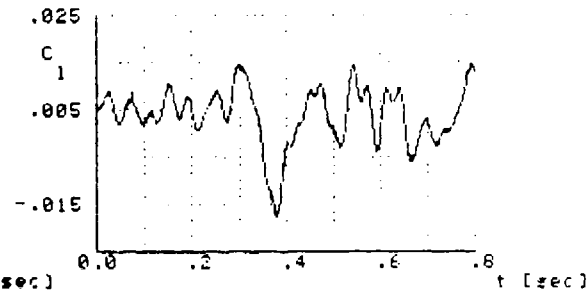
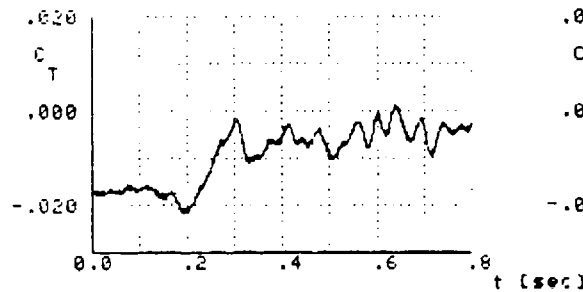
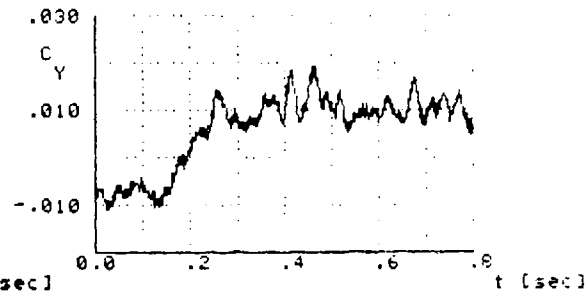
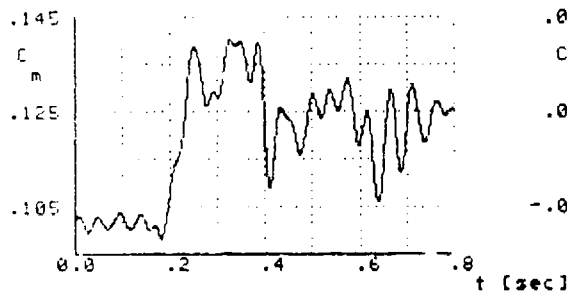
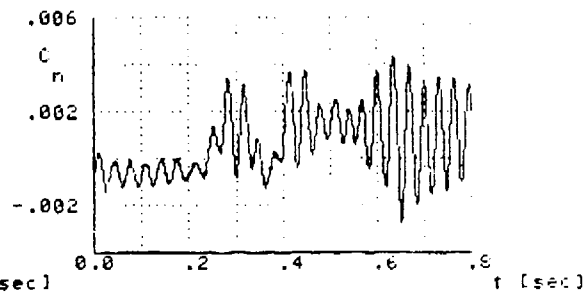
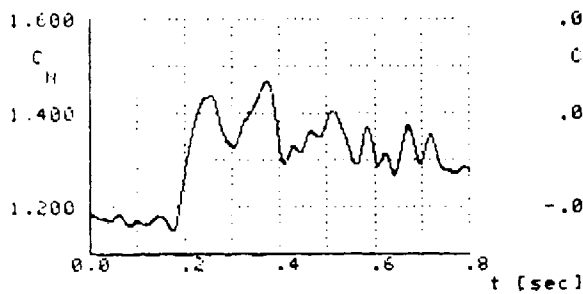
RUN = 3072  
 ALPHA<sub>0</sub> = 24 deg  
 DRALPHA<sub>0</sub> = 16 deg  
 T/2 = 125 msec

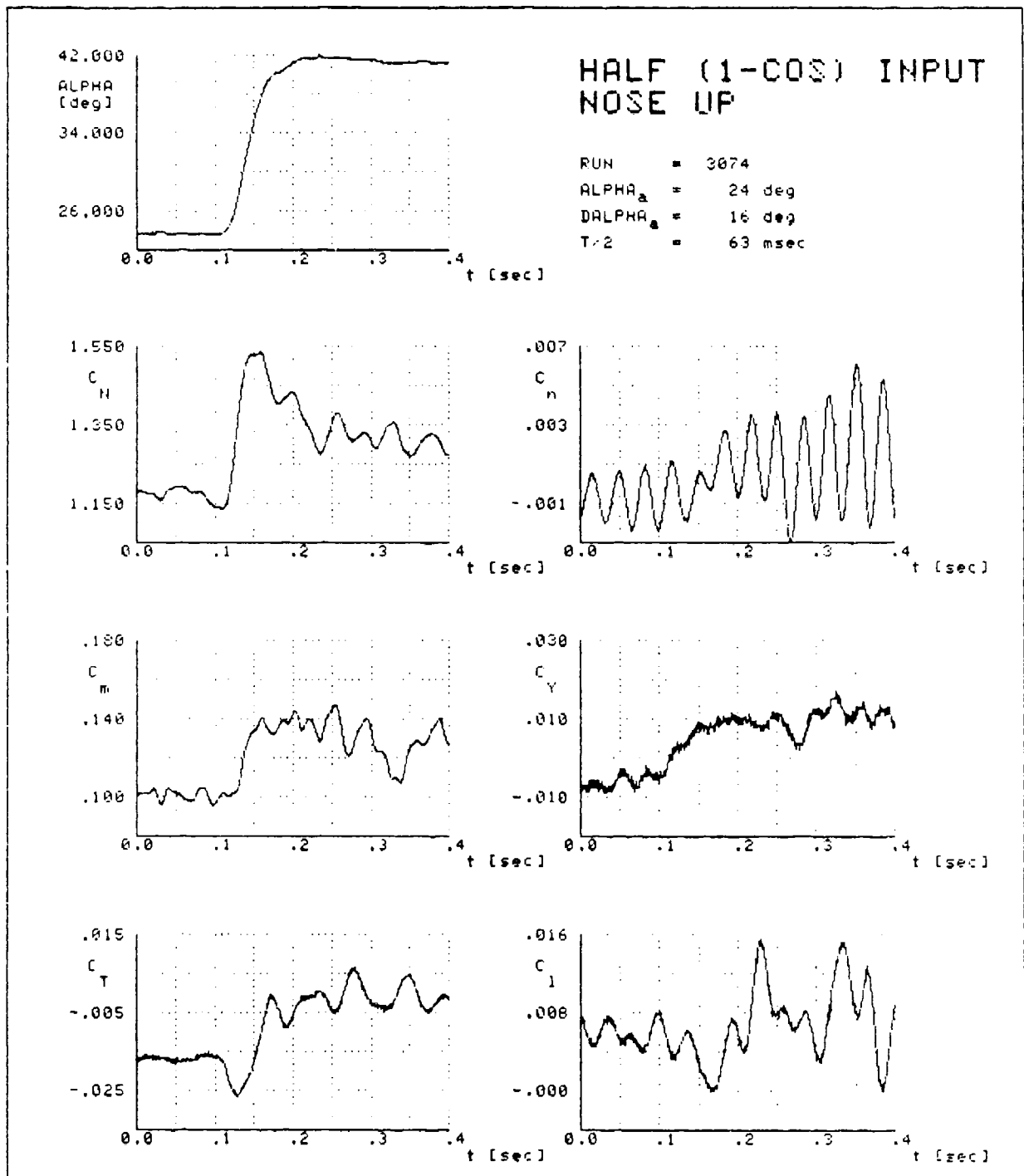


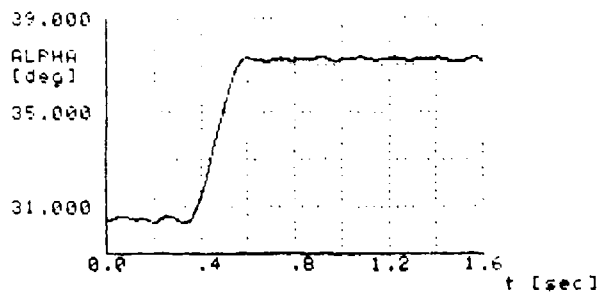


# HALF (1-COS) INPUT NOSE UP

RUN = 3073  
 ALPHA<sub>0</sub> = 24 deg  
 ΔALPHA<sub>0</sub> = 16 deg  
 T/2 = 100 msec

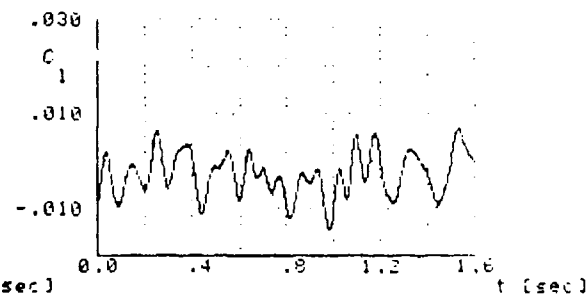
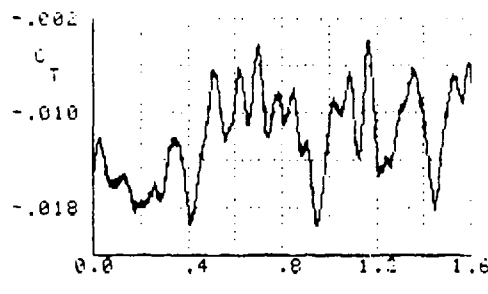
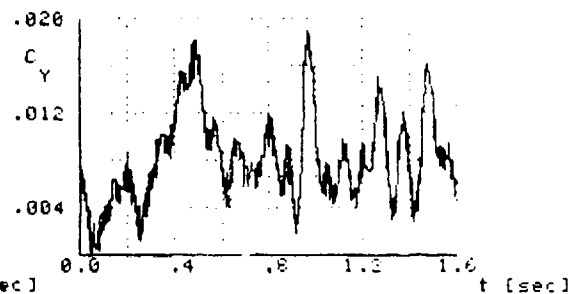
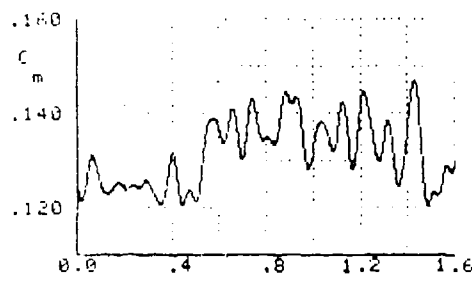
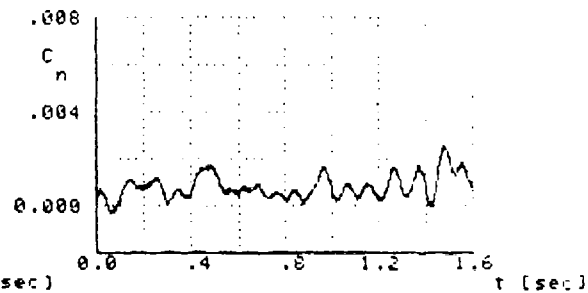
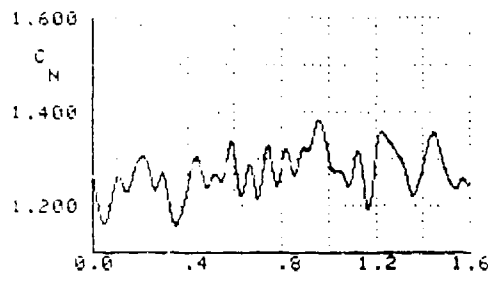


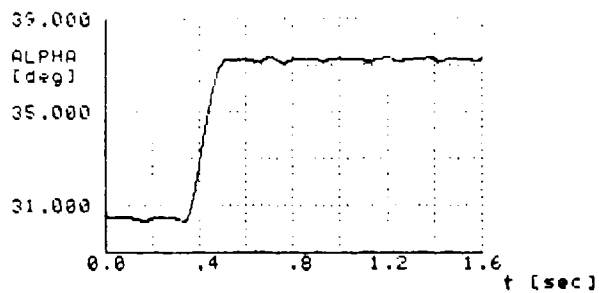




# HALF (1-COS) INPUT NOSE UP

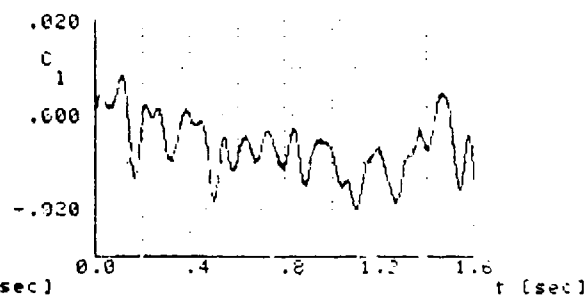
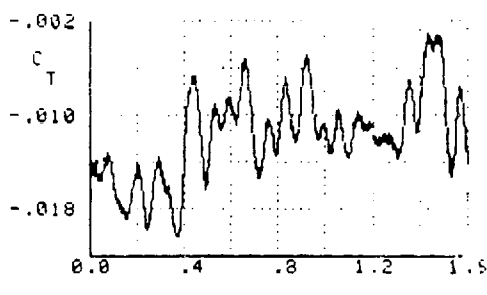
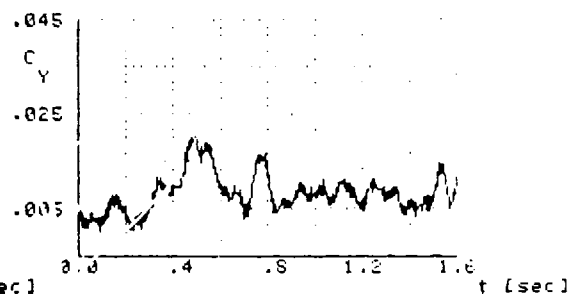
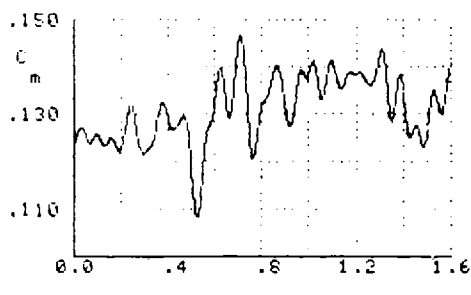
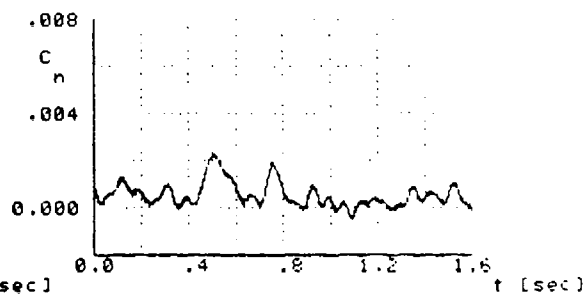
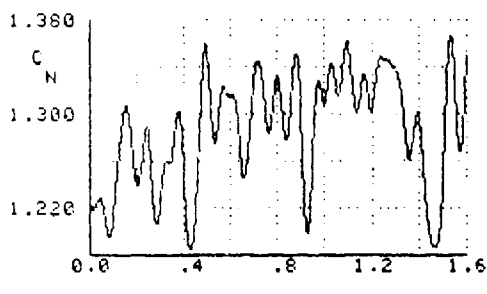
RUN = 3075  
ALPHA = 32 deg  
DALPHA = 8 deg  
T/2 = 250 msec

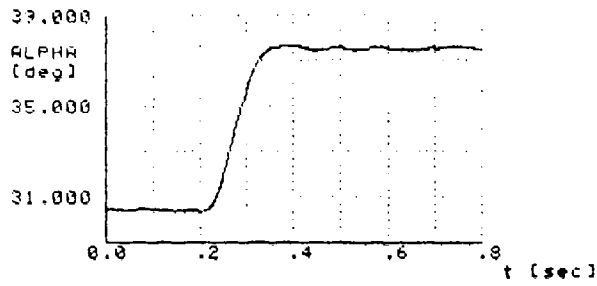




# HALF (1-COS) INPUT NOSE UP

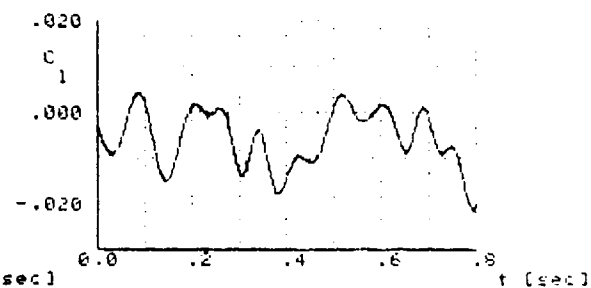
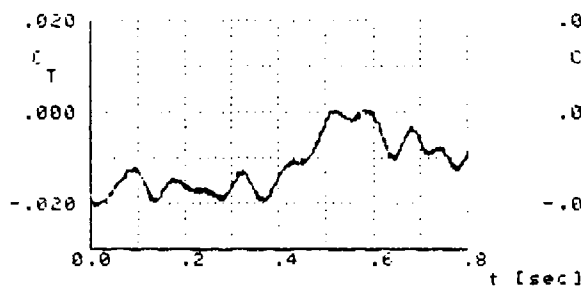
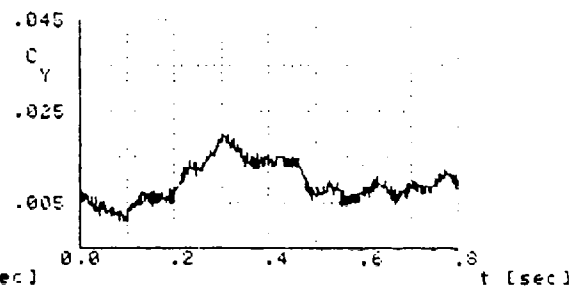
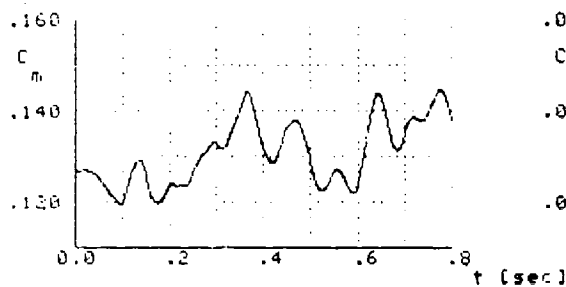
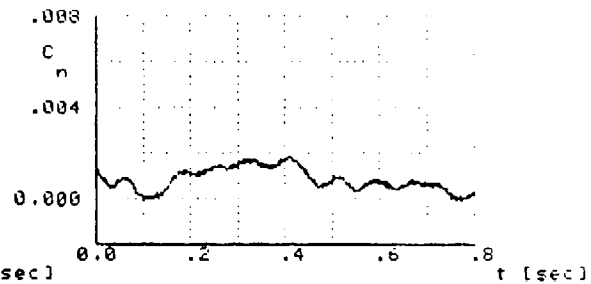
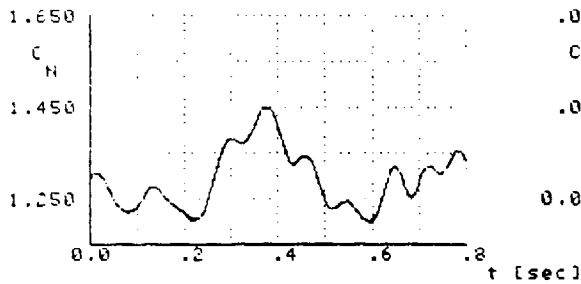
RUN = 3076  
ALPHA<sub>0</sub> = 32 deg  
DALPHA<sub>0</sub> = 8 deg  
T/2 = 167 msec



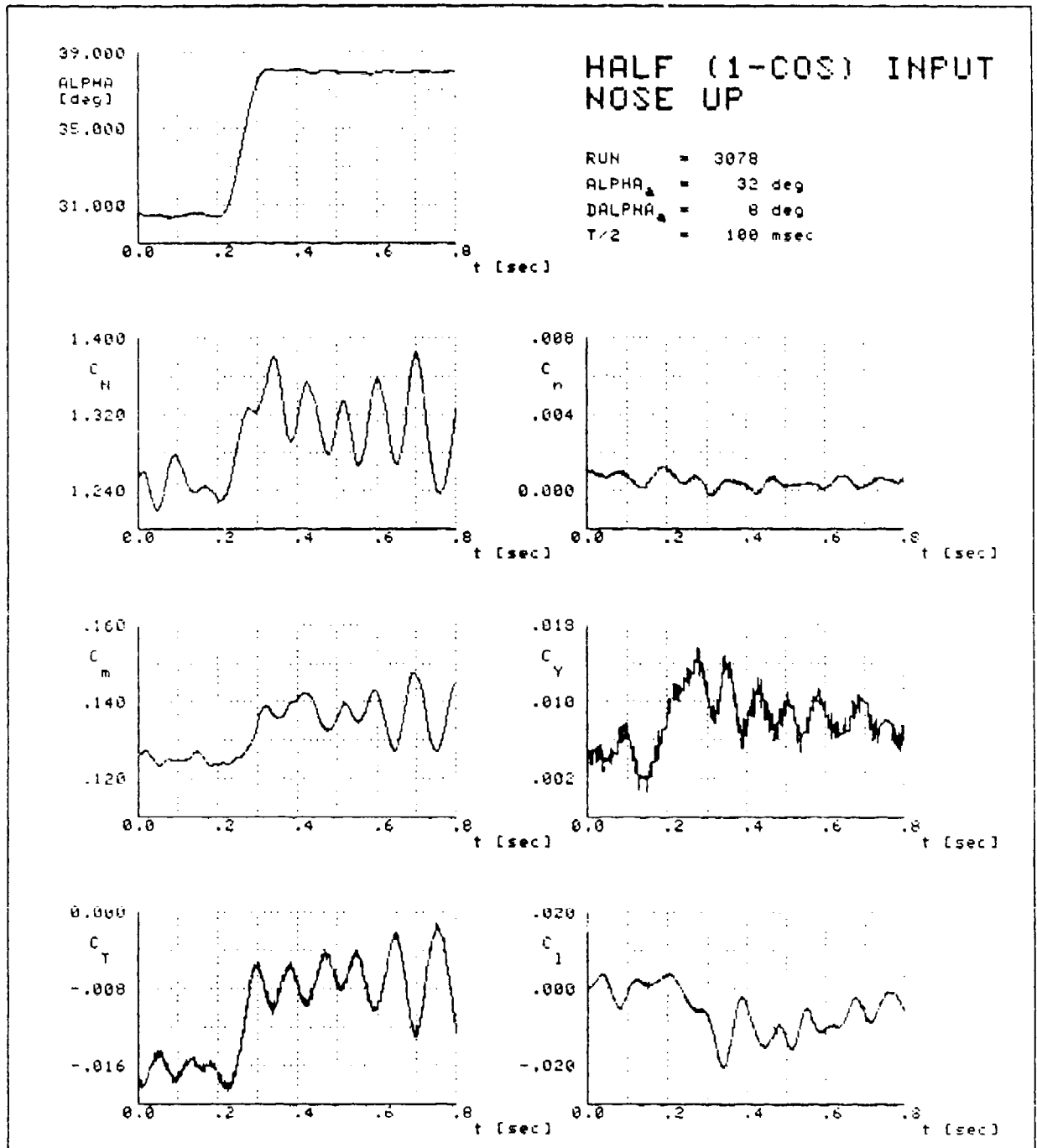


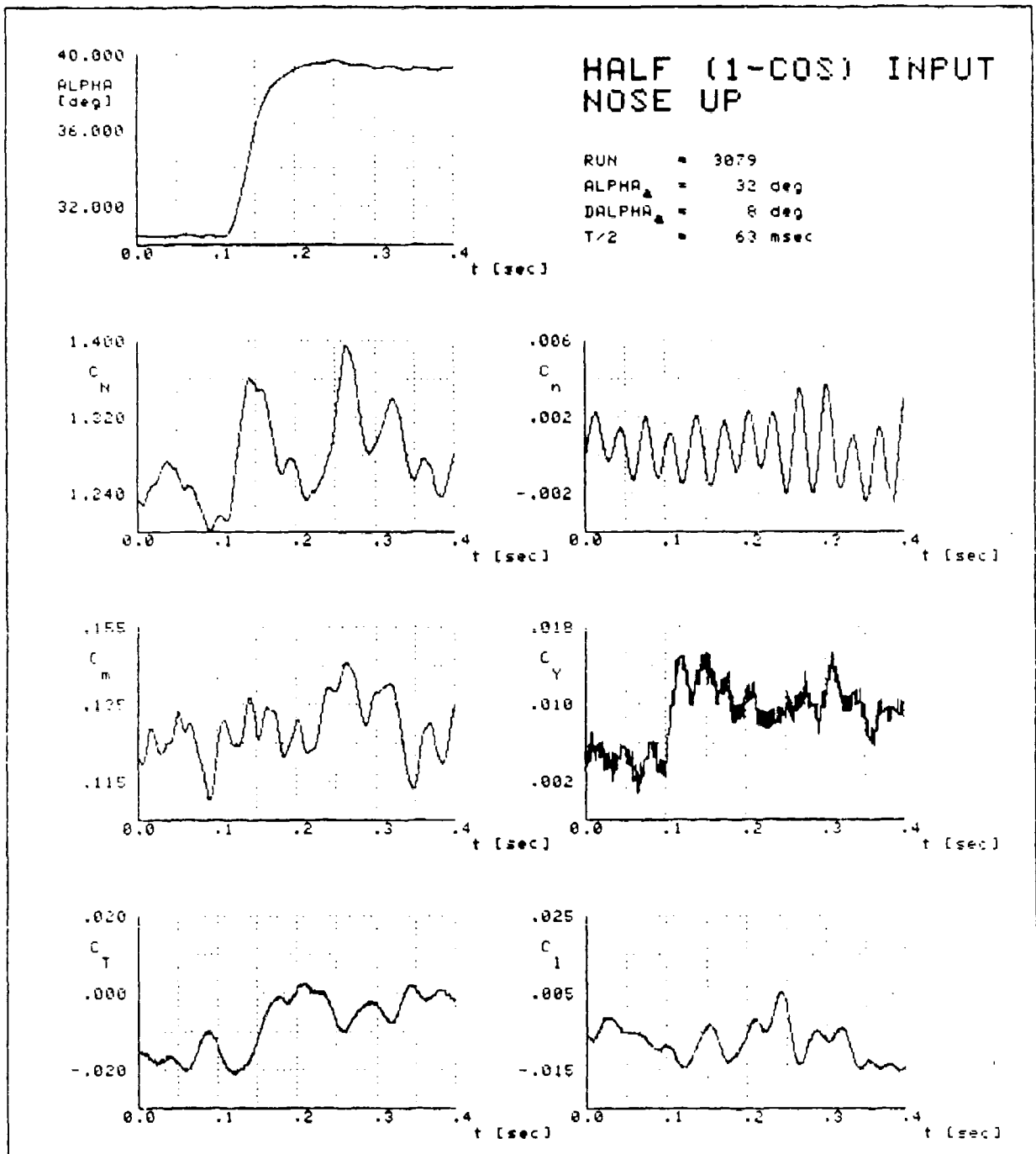
# HALF (1-COS) INPUT NOISE UP

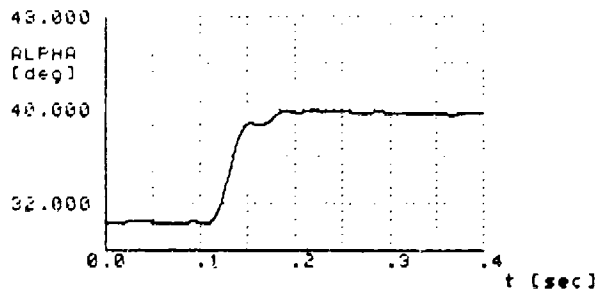
RUN = 3077  
 ALPHA = 32 deg  
 DIALPHA = 8 deg  
 T/2 = 125 msec





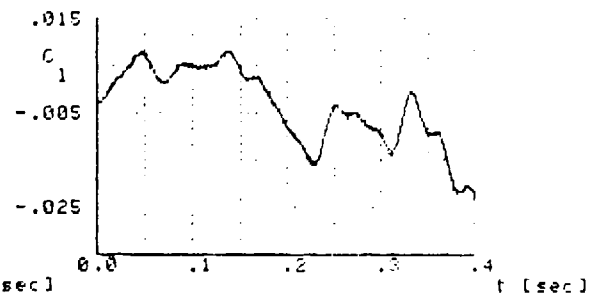
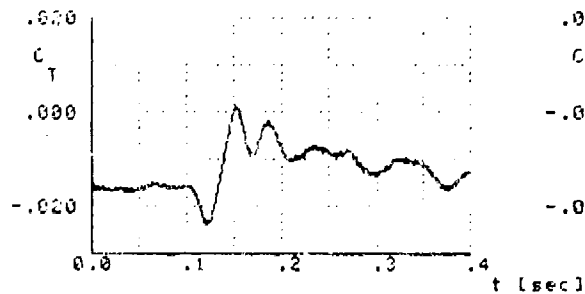
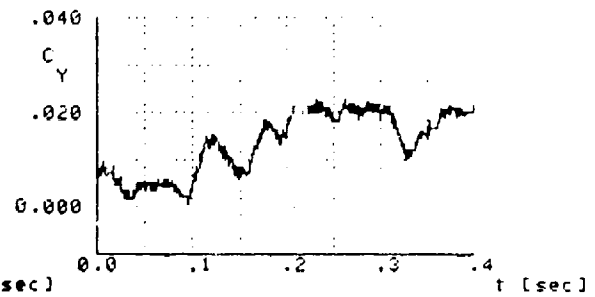
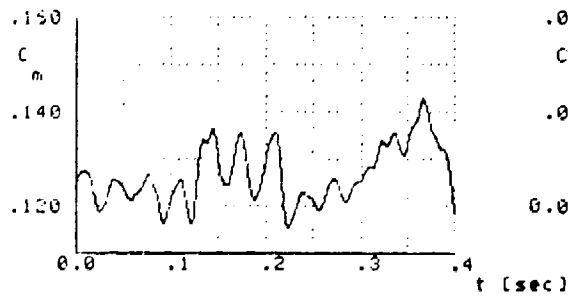
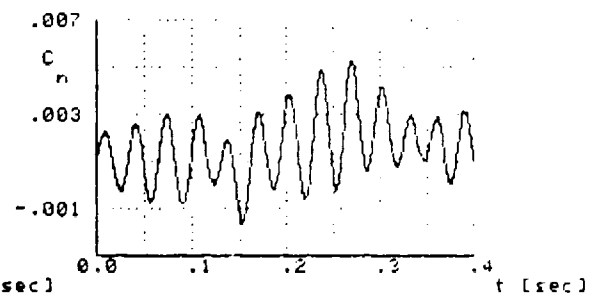
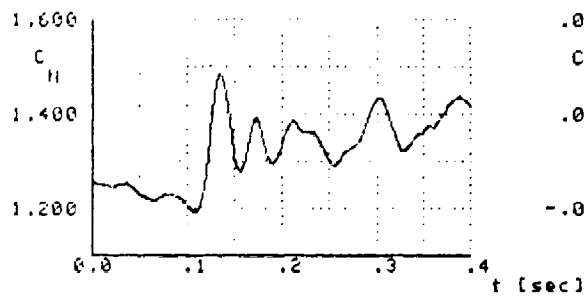


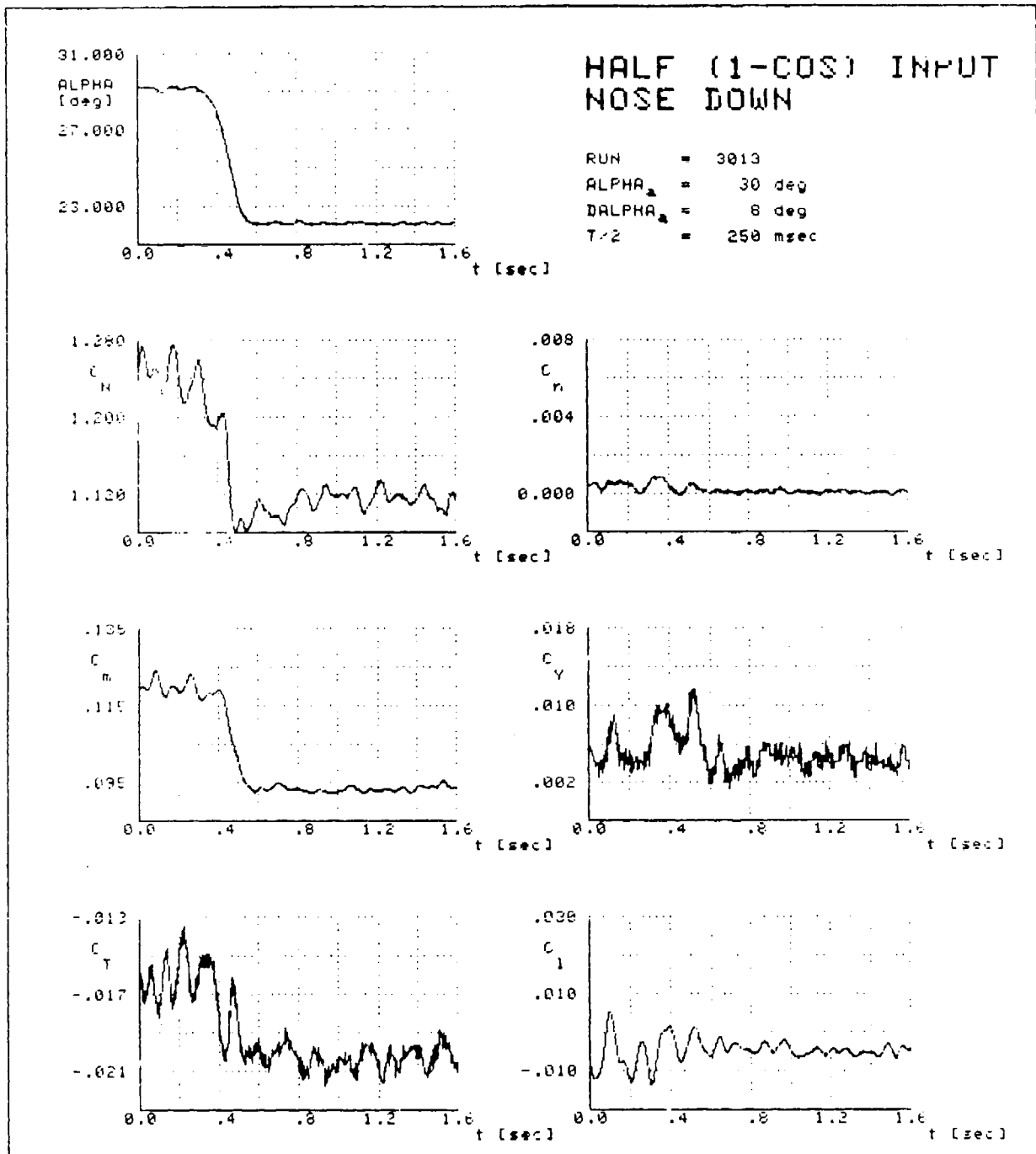


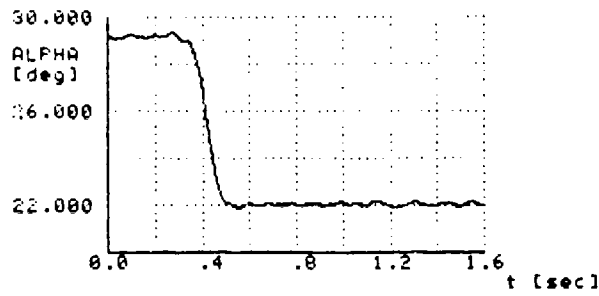


HALF (1-COS) INPUT  
NOSE UP

RUN = 3060  
ALPHA<sub>a</sub> = 32 deg  
DALPHA<sub>a</sub> = 8 deg  
T/2 = 42 msec

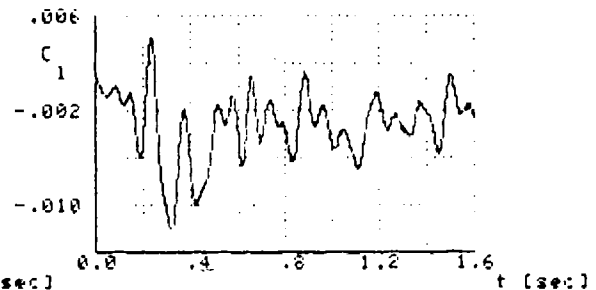
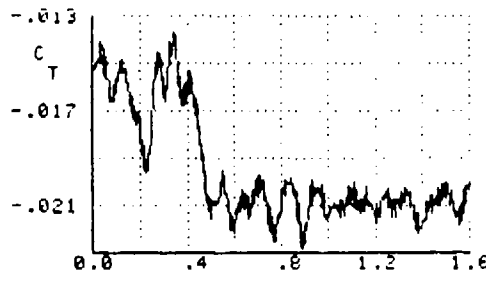
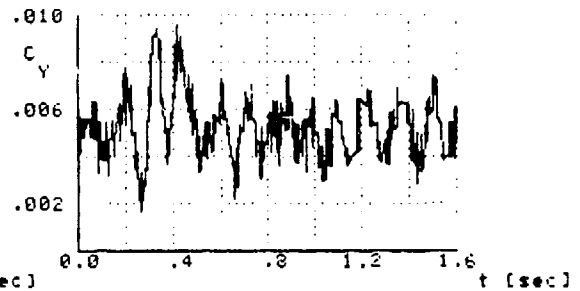
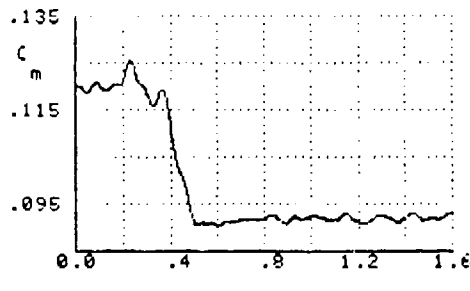
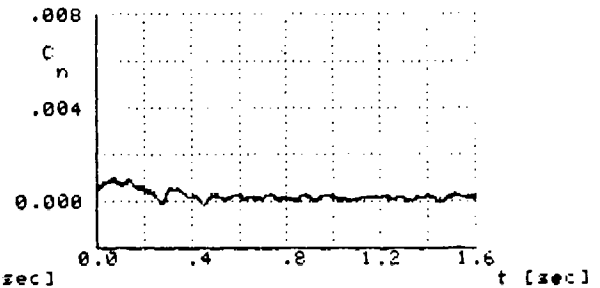
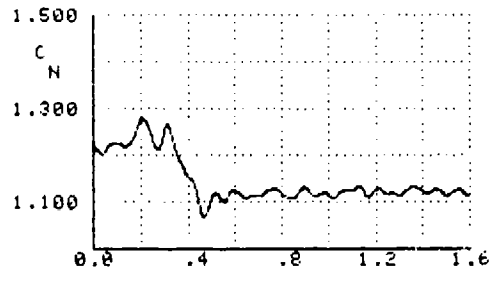


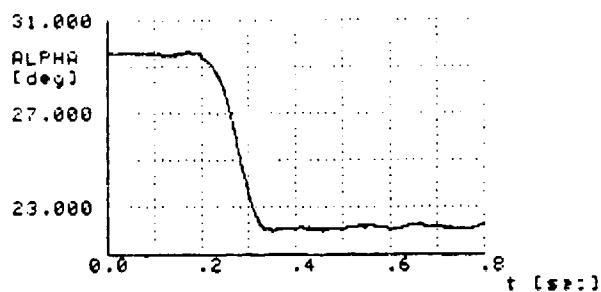




# HALF (1-COS) INPUT NOSE DOWN

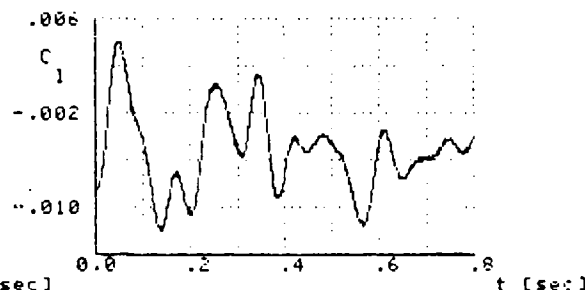
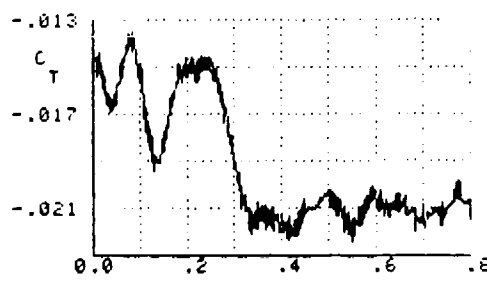
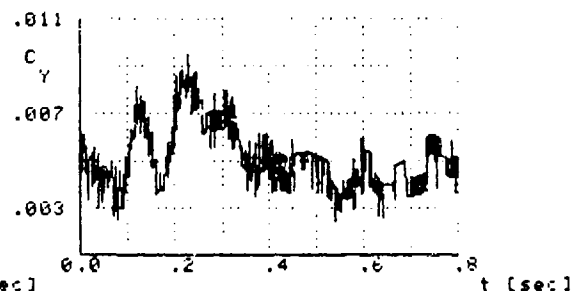
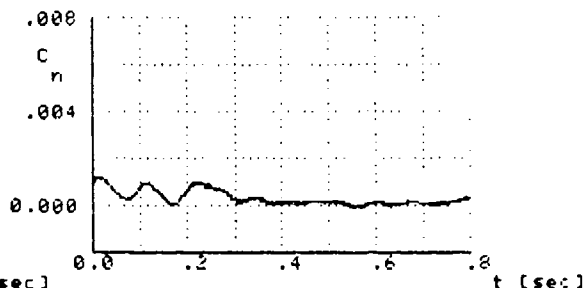
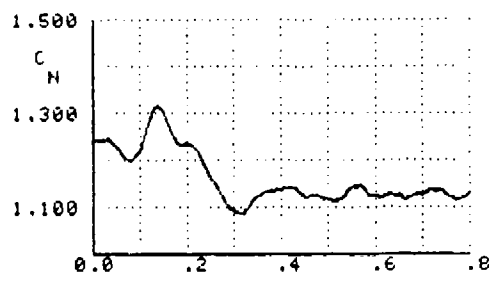
RUN = 3014  
ALPHA<sub>a</sub> = 30 deg  
DALPHA<sub>a</sub> = 8 deg  
T/2 = 167 msec

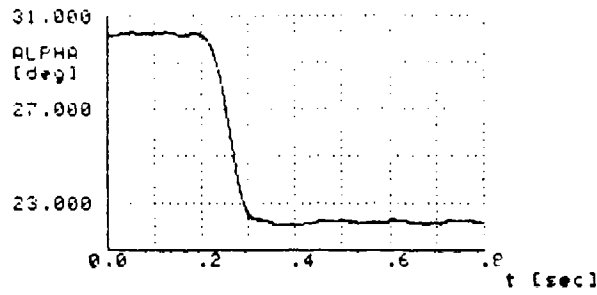




# HALF (1-COS) INPUT NOISE DOWN

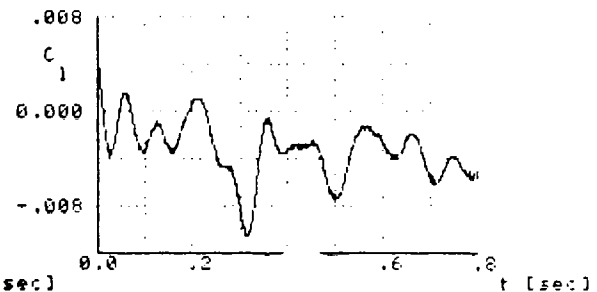
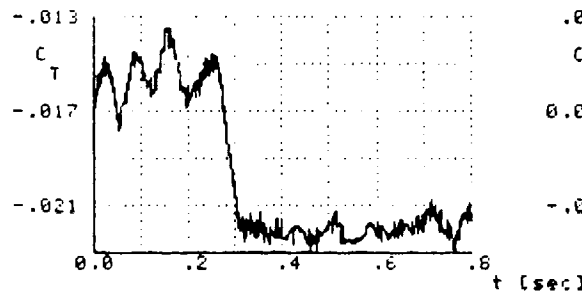
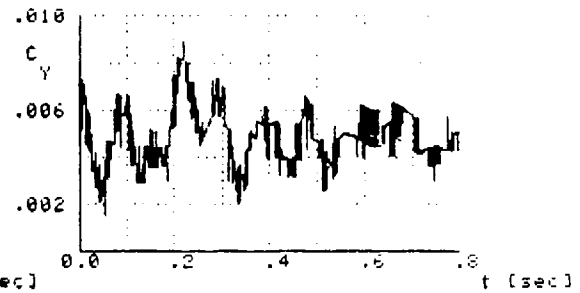
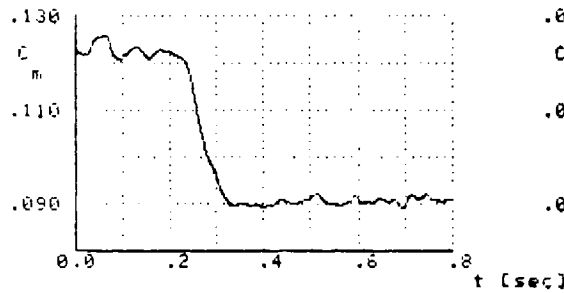
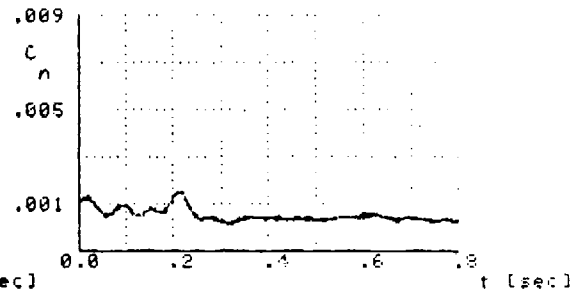
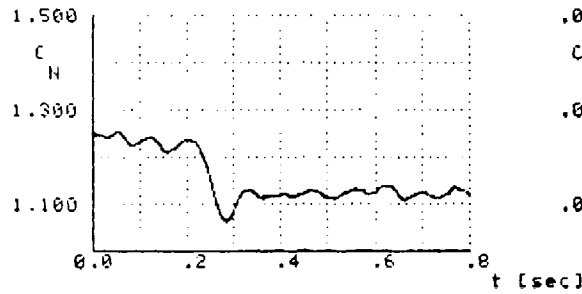
RUN = 3015  
ALPHA<sub>a</sub> = 30 deg  
DALPHA<sub>a</sub> = 8 deg  
T/2 = 125 msec

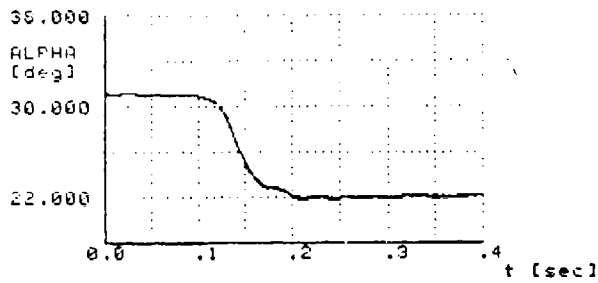




# HALF (1-COS) INPUT NOSE DOWN

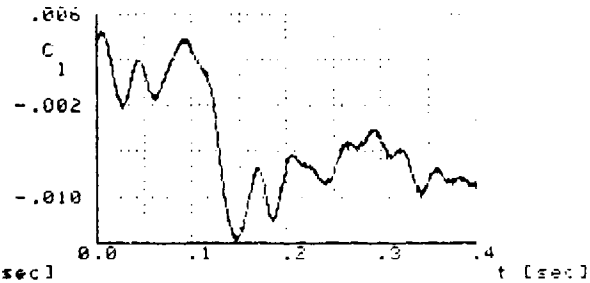
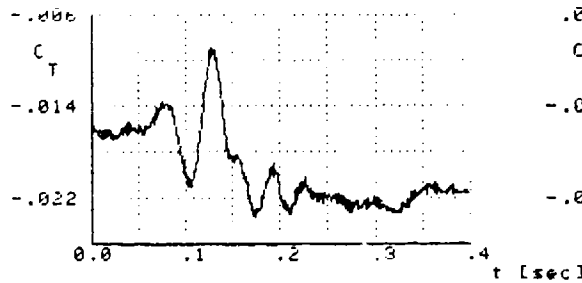
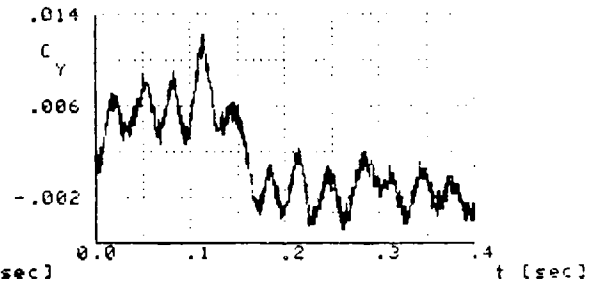
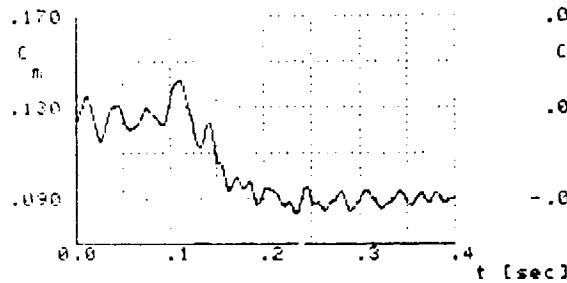
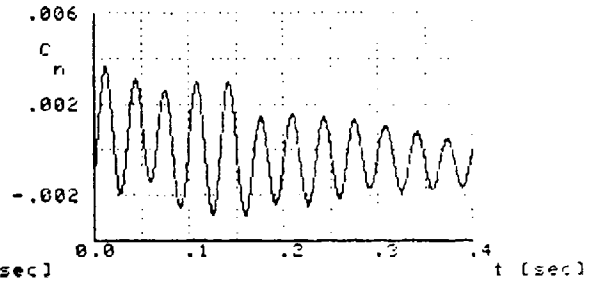
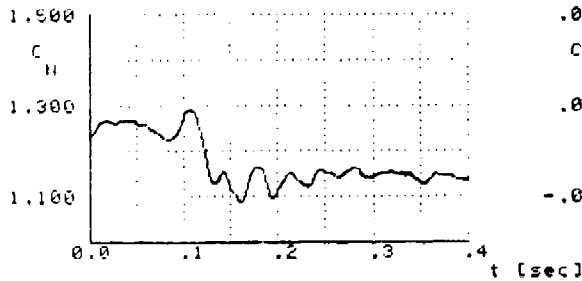
RUN = 3016  
 ALPHA<sub>a</sub> = 30 deg  
 DALPHA<sub>a</sub> = 8 deg  
 T/2 = 100 msec



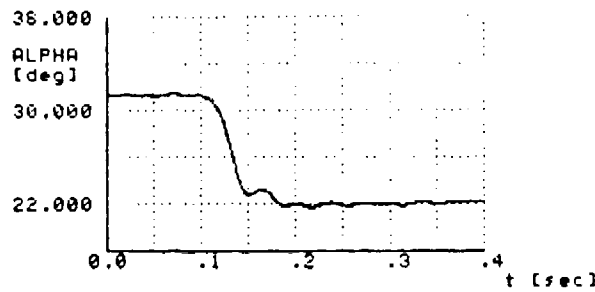


# HALF (1-COS) INPUT NOSE DOWN

RUN = 3017  
 ALPHA<sub>a</sub> = 30 deg  
 DRALPHA<sub>a</sub> = 8 deg  
 T/2 = 63 msec

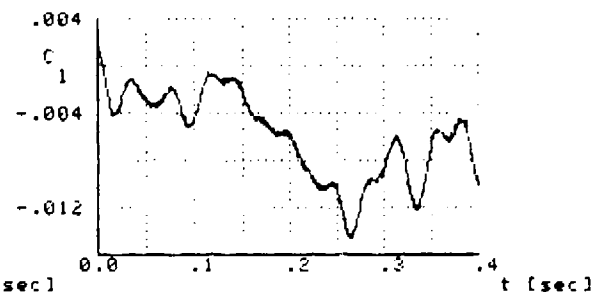
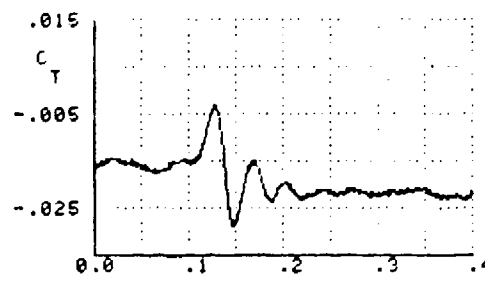
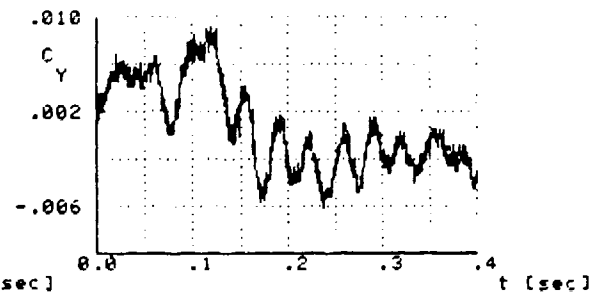
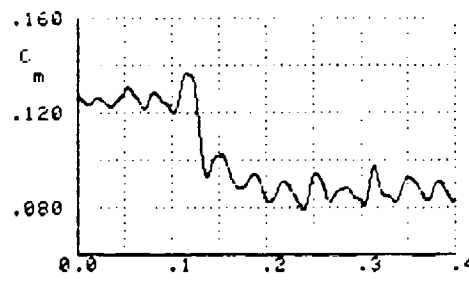
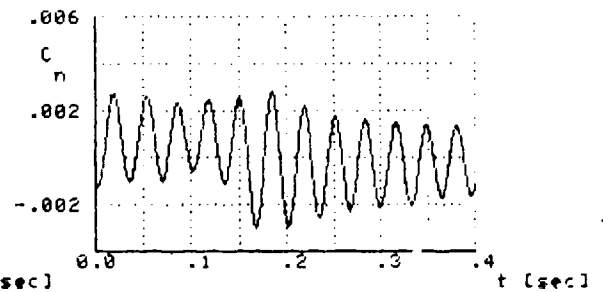
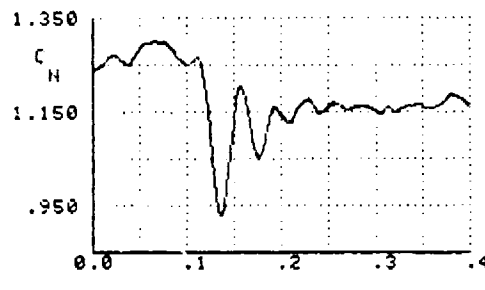


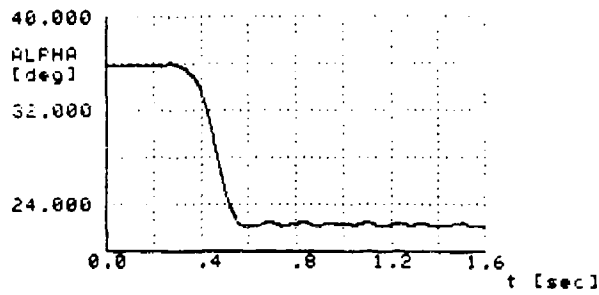




# HALF (1-COS) INPUT NOISE DOWN

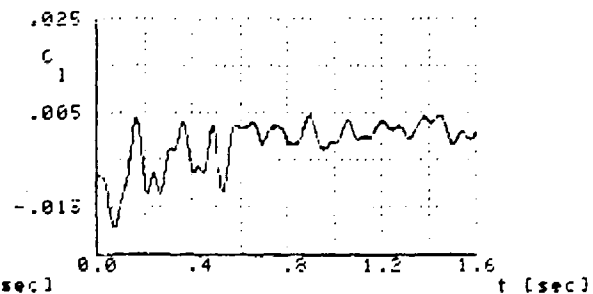
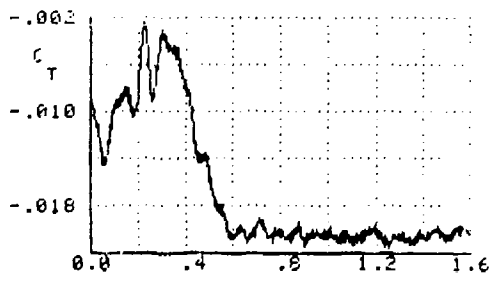
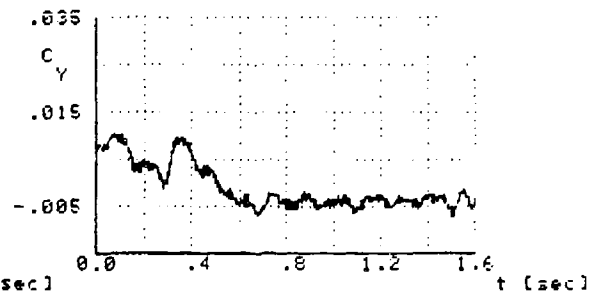
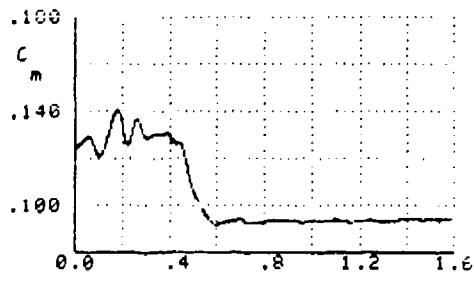
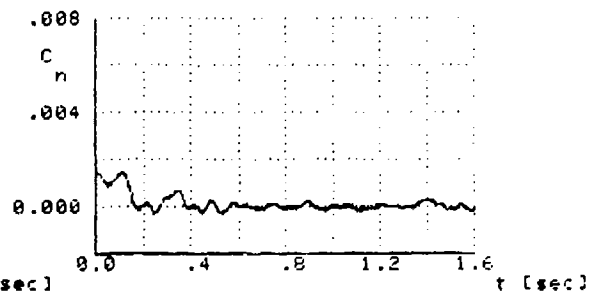
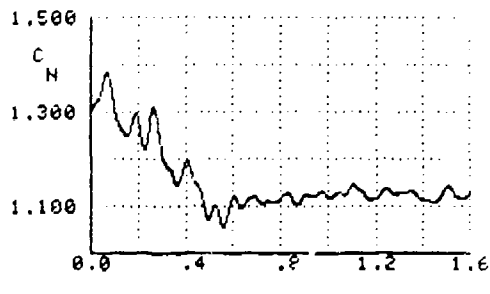
RUN = 3018  
 $\alpha_a$  = 30 deg  
 $\Delta\alpha_a$  = 8 deg  
 $T/2$  = 42 msec

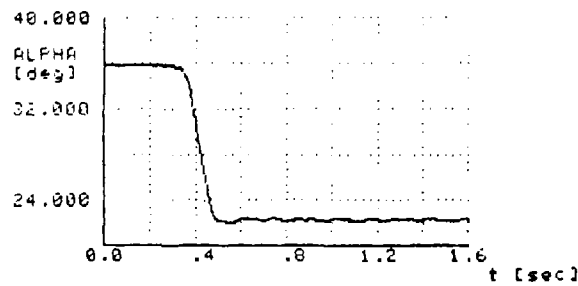




# HALF (1-COS) INPUT NOSE DOWN

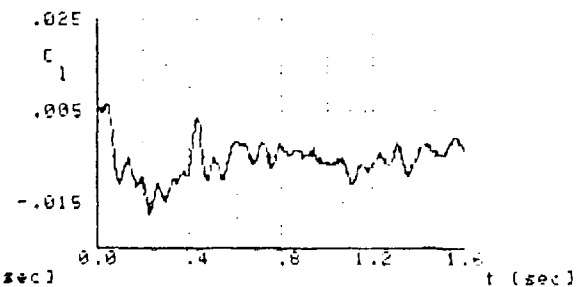
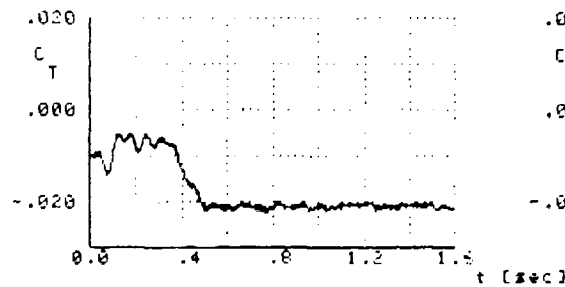
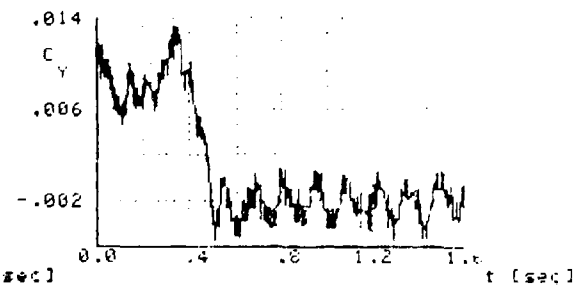
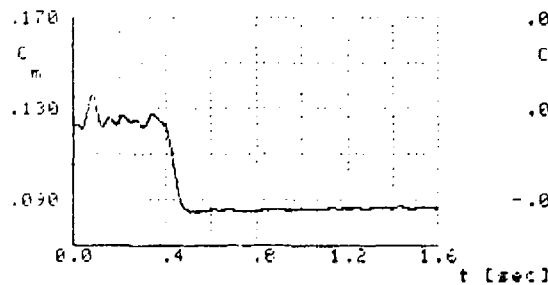
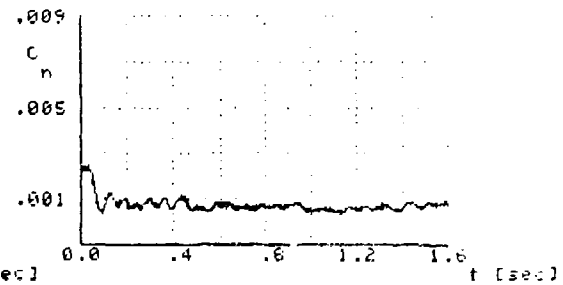
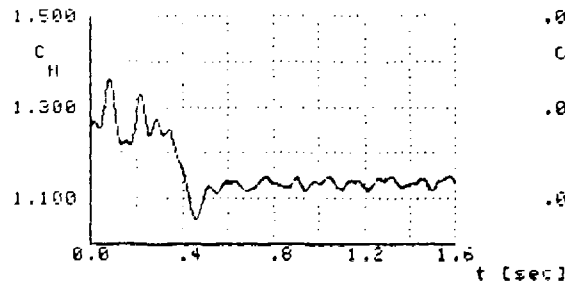
RUN = 3019  
ALPHA<sub>0</sub> = 38 deg  
DALPHA<sub>0</sub> = 16 deg  
T/2 = 250 msec

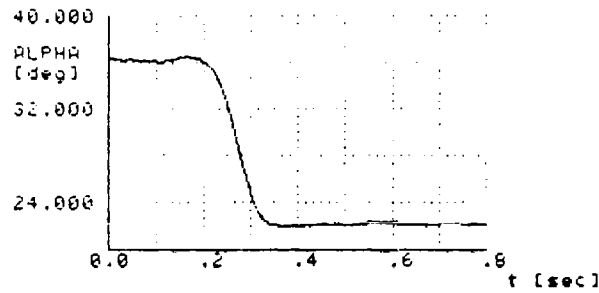




# HALF (1-COS) INPUT NOSE DOWN

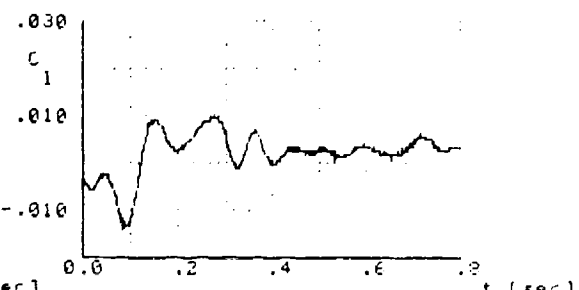
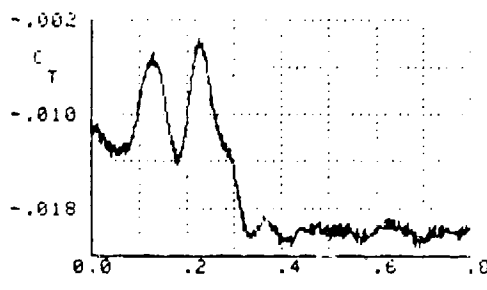
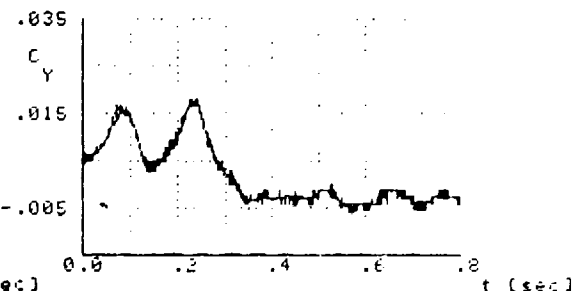
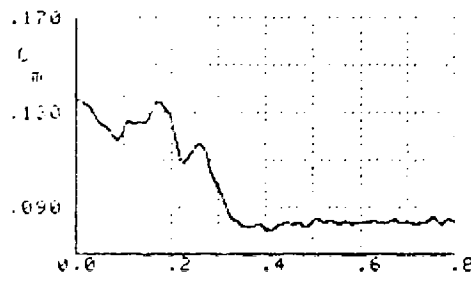
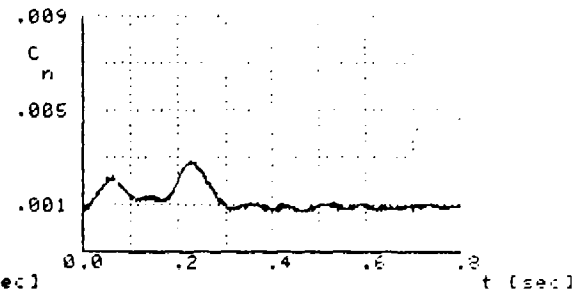
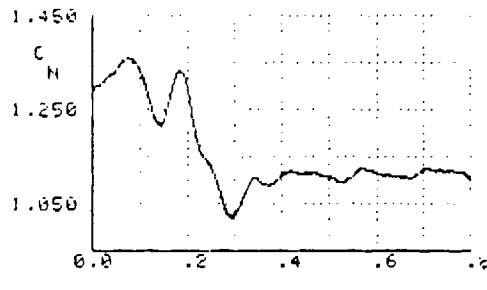
RUN = 3030  
 ALPHA<sub>a</sub> = 33 deg  
 D<sub>ALPHA</sub> = 16 deg  
 T/2 = 167 msec

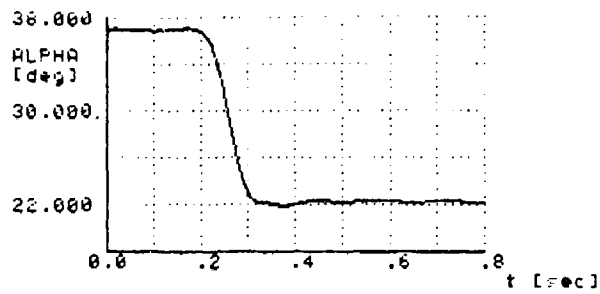




# HALF (1-COS) INPUT NOSE DOWN

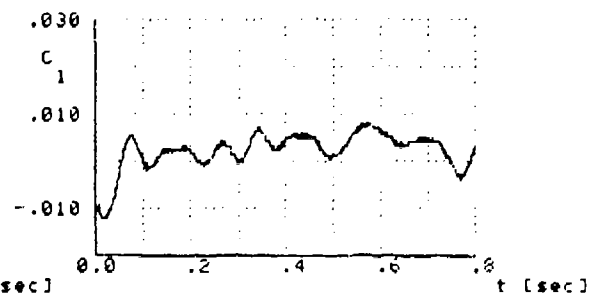
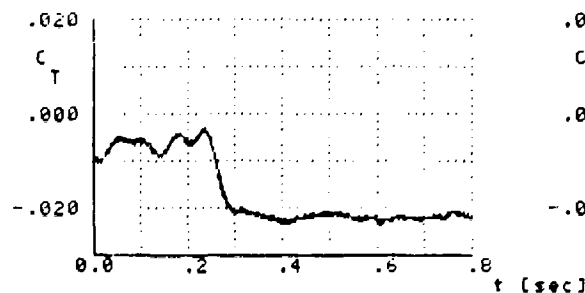
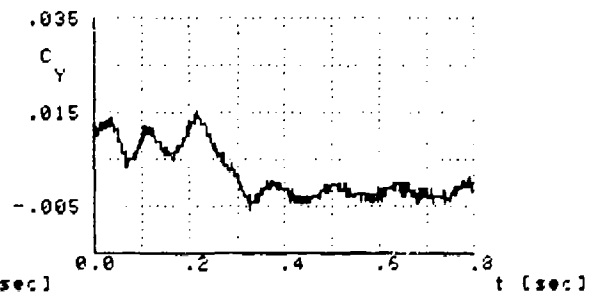
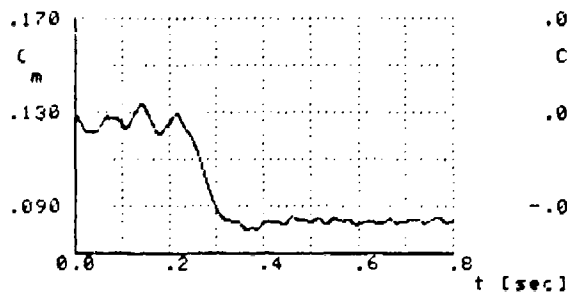
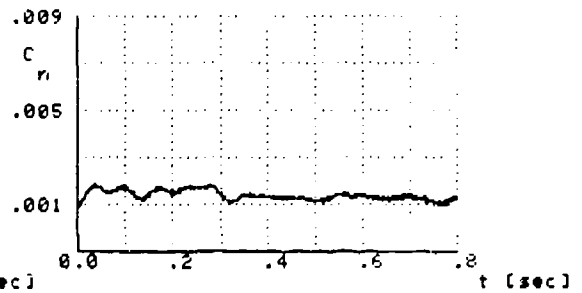
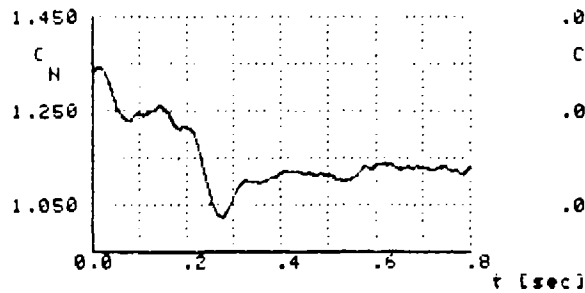
RUN = 3021  
 ALPHA<sub>0</sub> = 38 deg  
 ΔALPHA<sub>0</sub> = 16 deg  
 T/2 = 125 msec

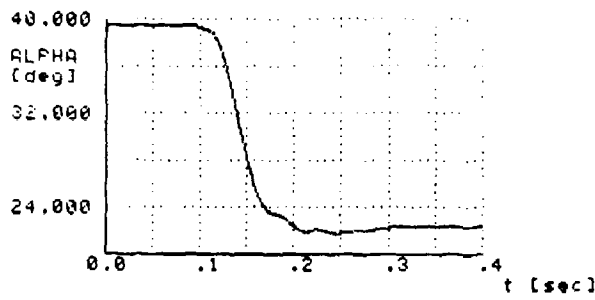




# HALF (1-COS) INPUT NOISE DOWN

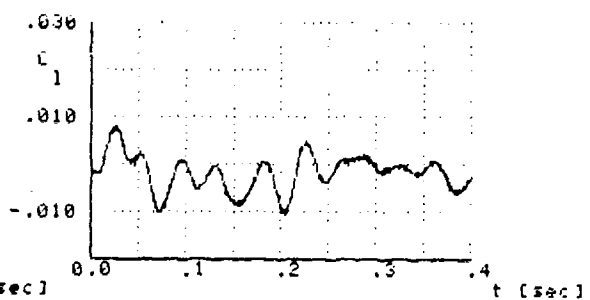
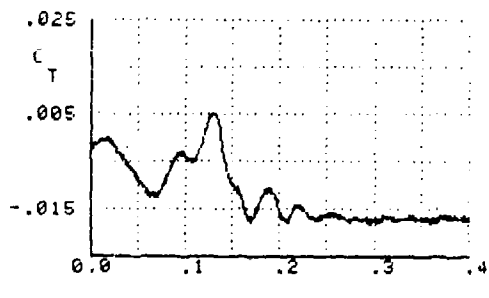
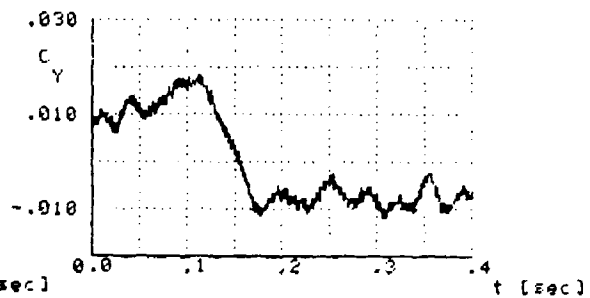
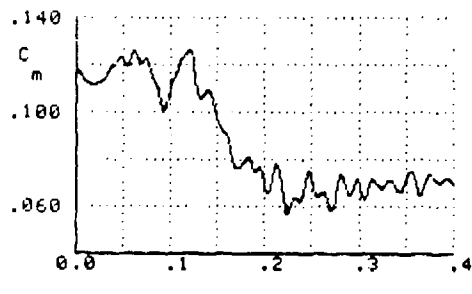
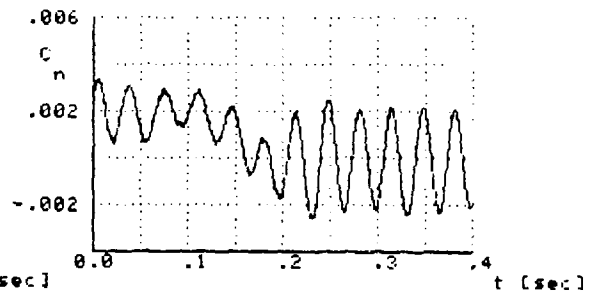
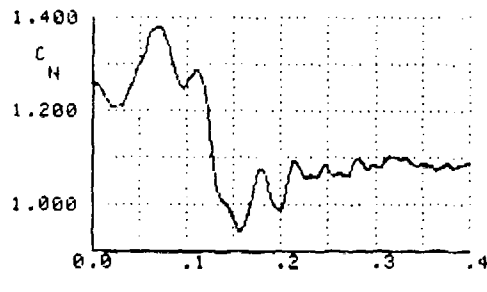
RUN = 3022  
 ALPHA<sub>a</sub> = 38 deg  
 DALPHA<sub>a</sub> = 16 deg  
 T/2 = 100 msec

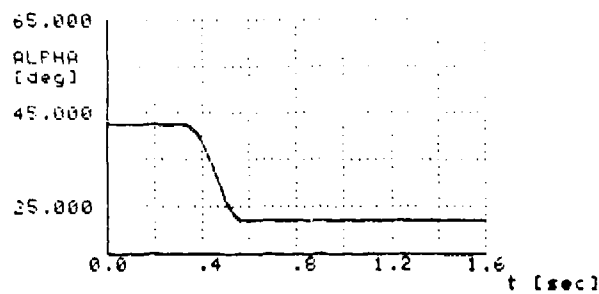




# HALF (1-COS) INPUT NOSE DOWN

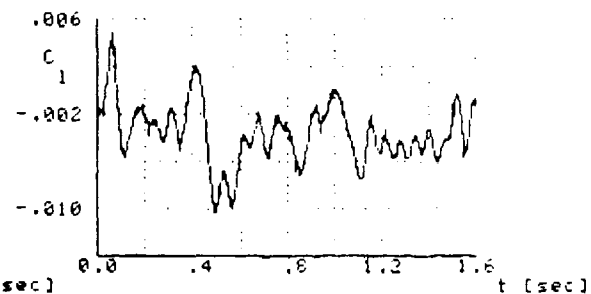
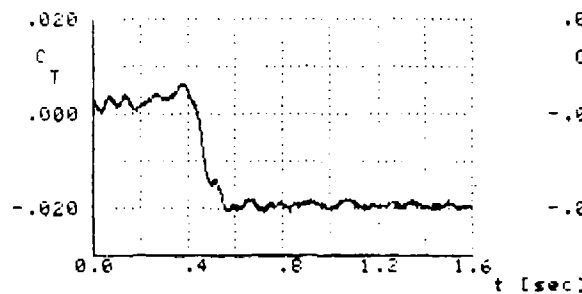
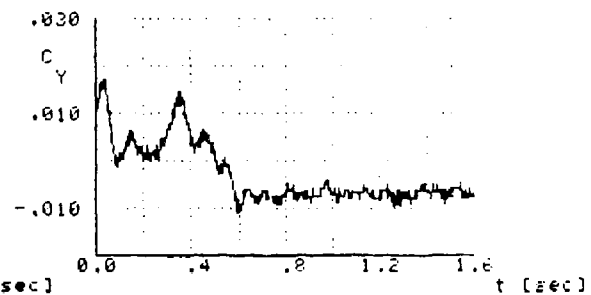
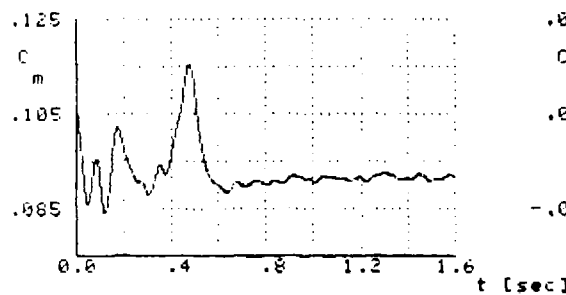
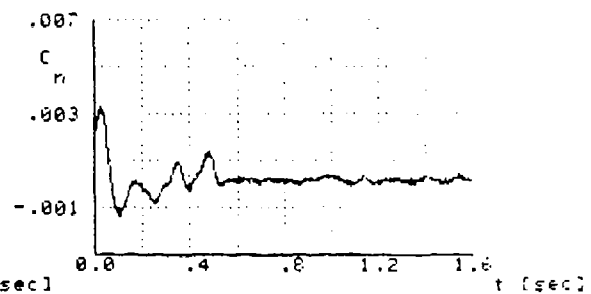
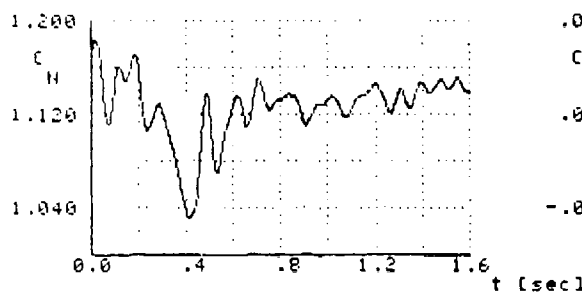
RUN = 3023  
 ALPHA<sub>a</sub> = 38 deg  
 DALPHA<sub>a</sub> = 16 deg  
 T/2 = 63 msec

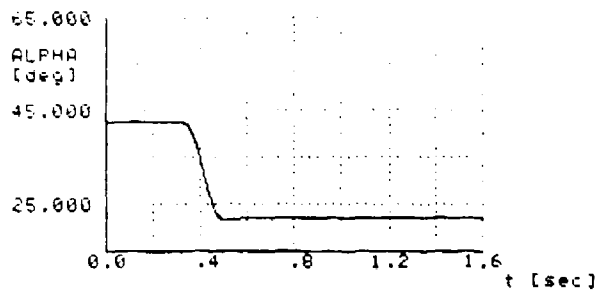




# HALF (1-COS) INPUT NOSE DOWN

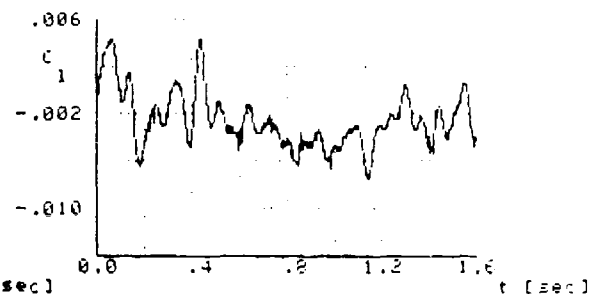
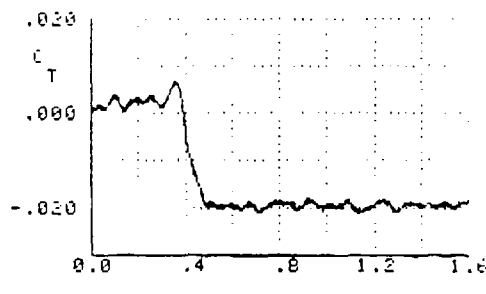
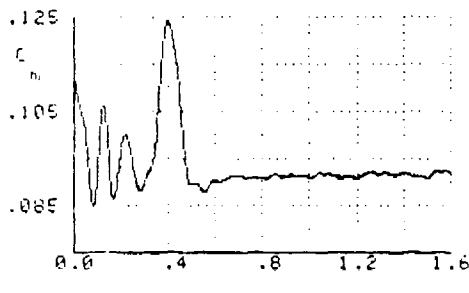
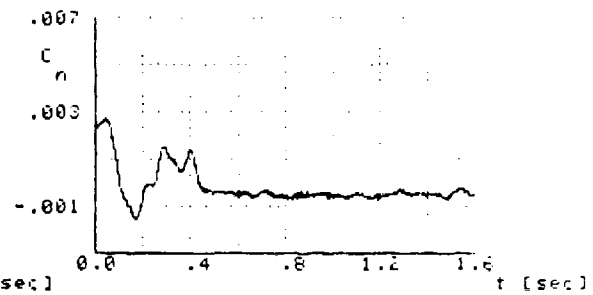
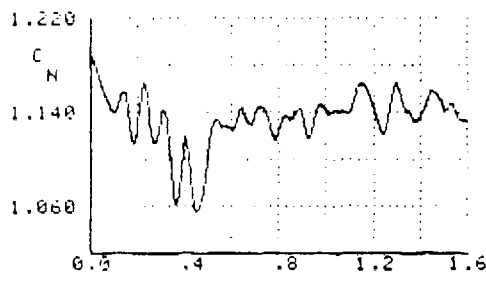
RUN = 3024  
ALPHA<sub>0</sub> = 45 deg  
DALPHA<sub>0</sub> = 24 deg  
T/2 = 250 msec



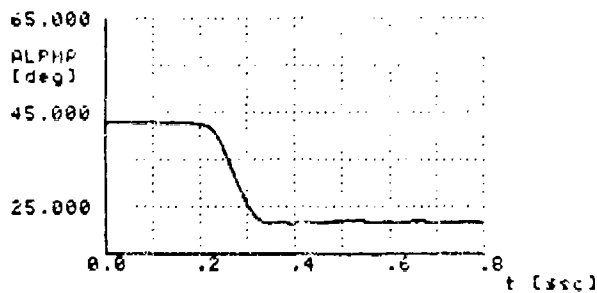


# HALF (1-COS) INPUT NOSE DOWN

RUN = 3025  
 ALPHA<sub>a</sub> = 46 deg  
 DALPHA<sub>a</sub> = 24 deg  
 T/2 = 167 msec

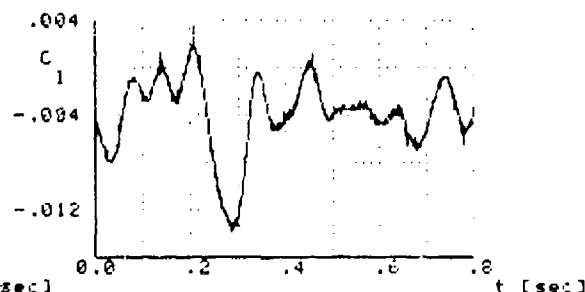
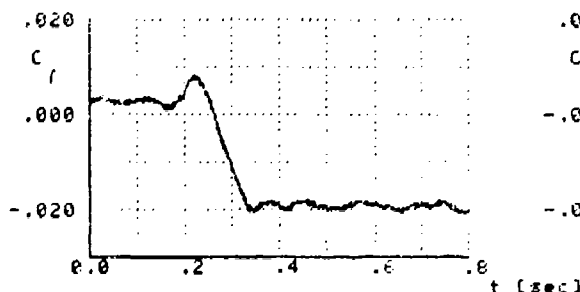
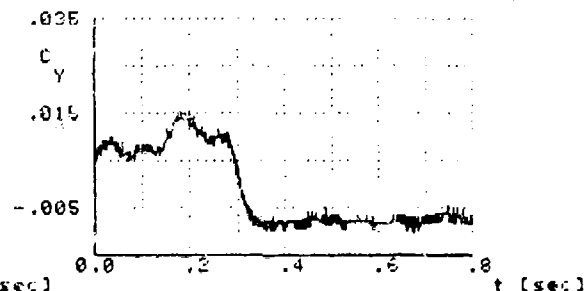
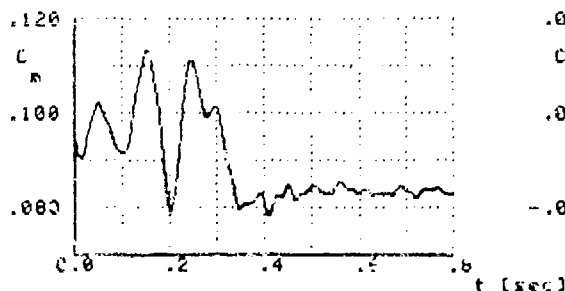
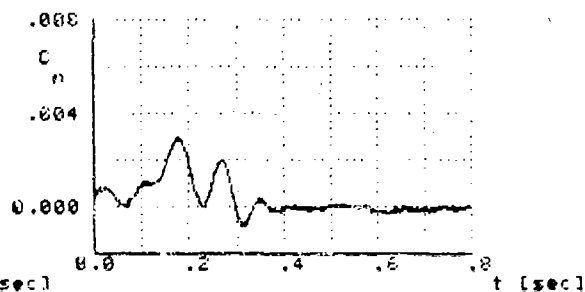
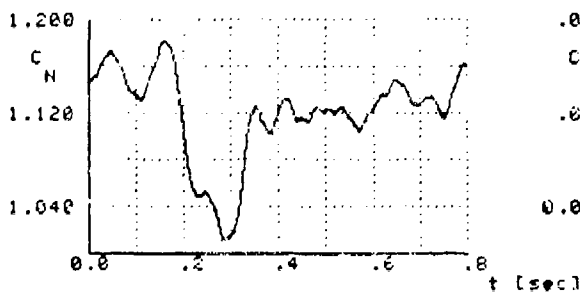


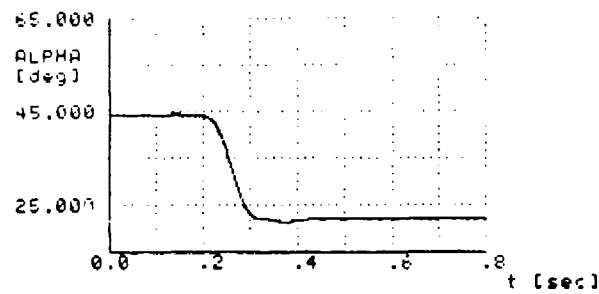




# HALF (1-COS) INPUT NOISE DOWN

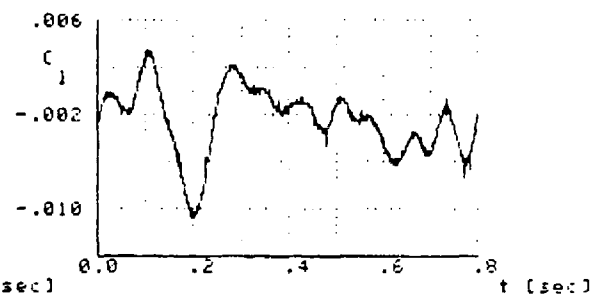
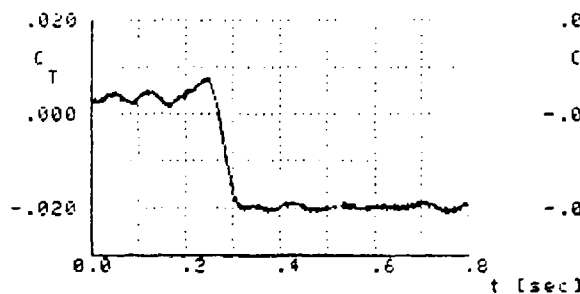
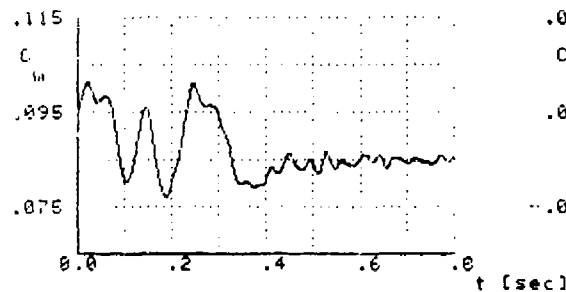
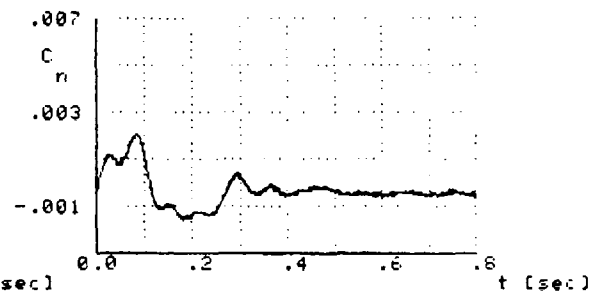
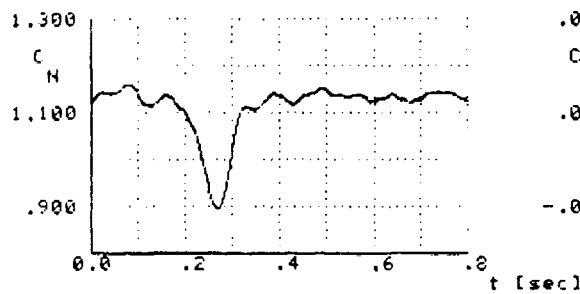
RUN = 3626  
 $\text{ALPHA}_a = 40 \text{ deg}$   
 $\text{BALPHA}_a = 20 \text{ deg}$   
 $T/2 = 125 \text{ msec}$

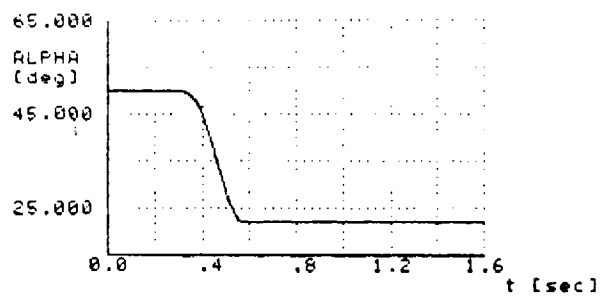




# HALF (1-COS) INPUT NOSE DOWN

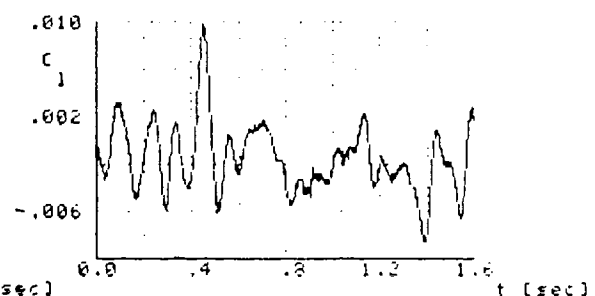
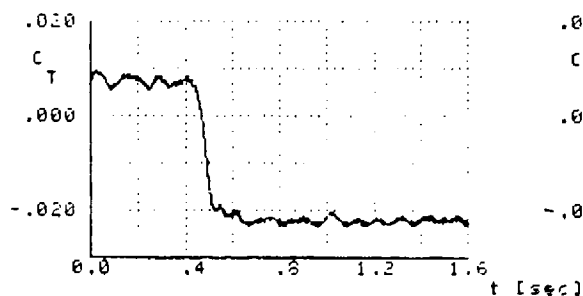
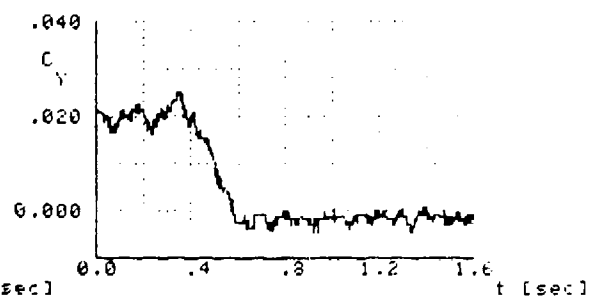
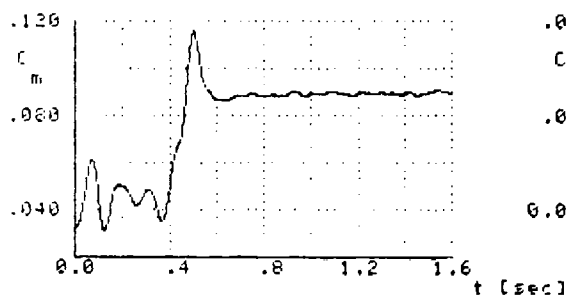
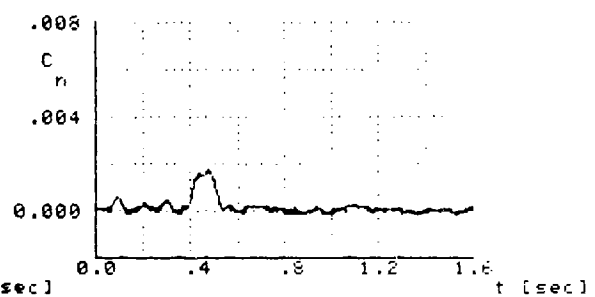
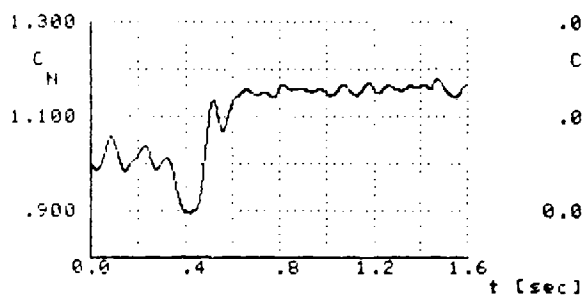
RUN = 3027  
 $\text{ALPHA}_a = 46 \text{ deg}$   
 $\text{DALPHA}_a = 24 \text{ deg}$   
 $T/2 = 100 \text{ msec}$

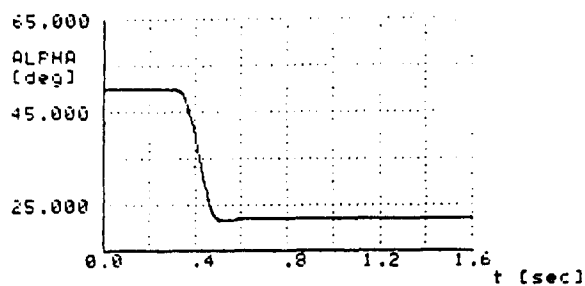




# HALF (1-COS) INPUT NOSE DOWN

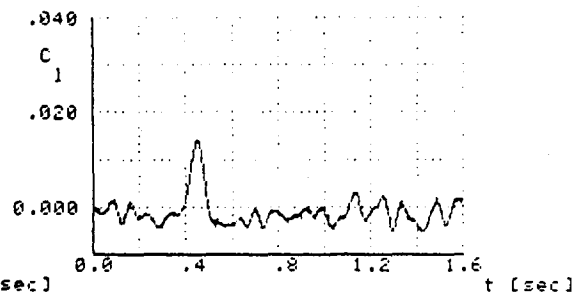
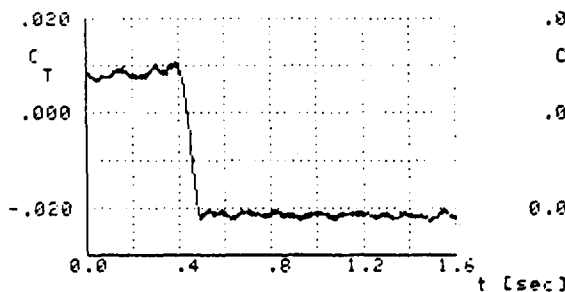
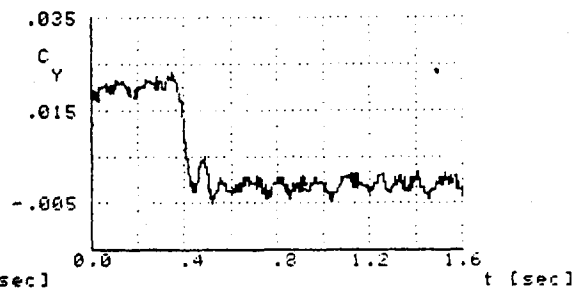
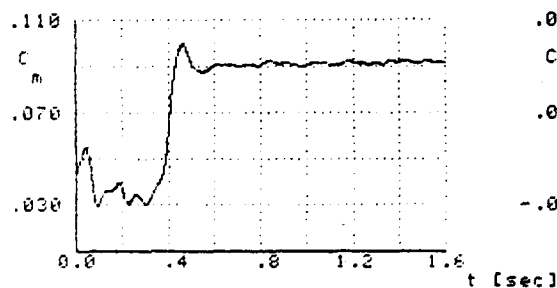
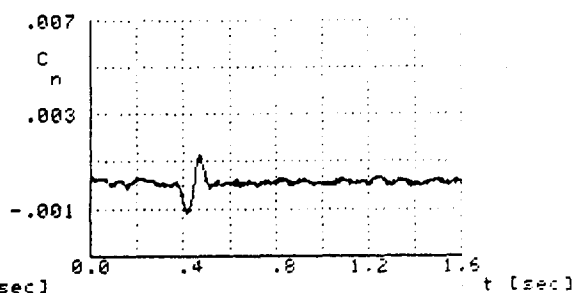
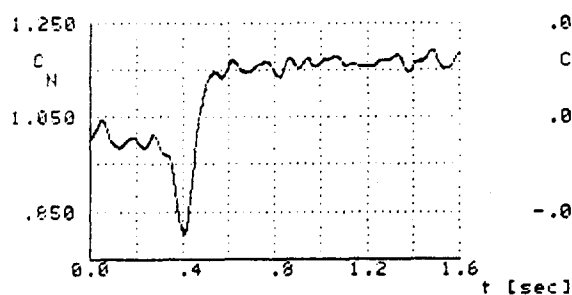
RUN = 3028  
 ALPHA<sub>a</sub> = 54 deg  
 DALPHA<sub>a</sub> = 32 deg  
 T/2 = 250 msec

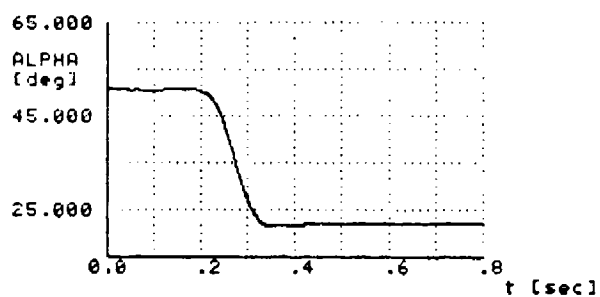




# HALF (1-COS) INPUT NOSE DOWN

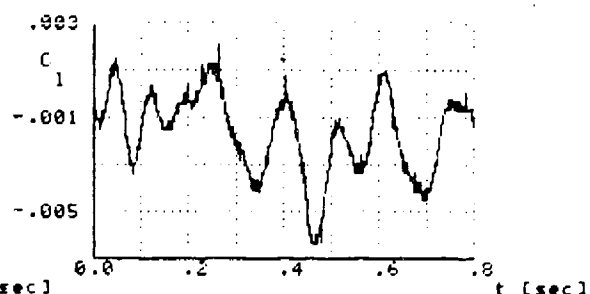
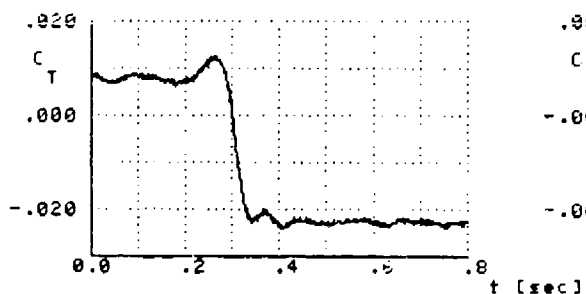
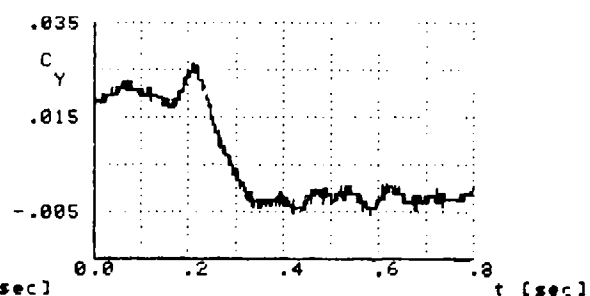
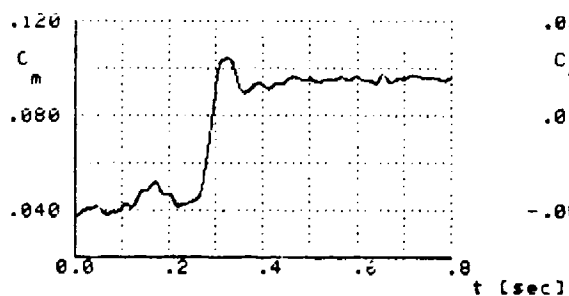
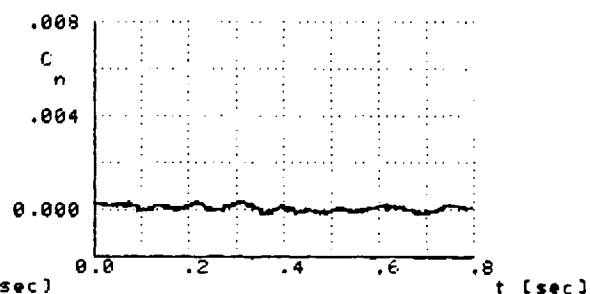
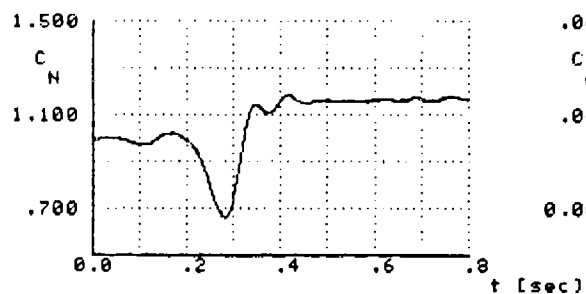
PUN = 3029  
 ALPHA<sub>a</sub> = 54 deg  
 DALPHA<sub>a</sub> = 32 deg  
 T/2 = 167 msec

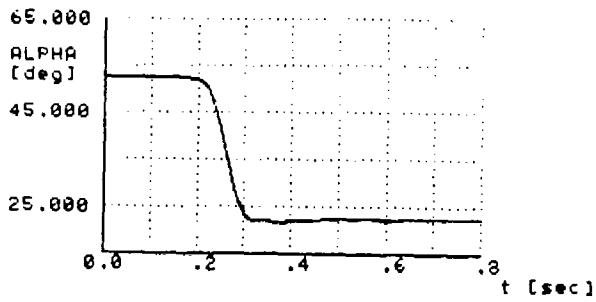




# HALF (1-COS) INPUT NOSE DOWN

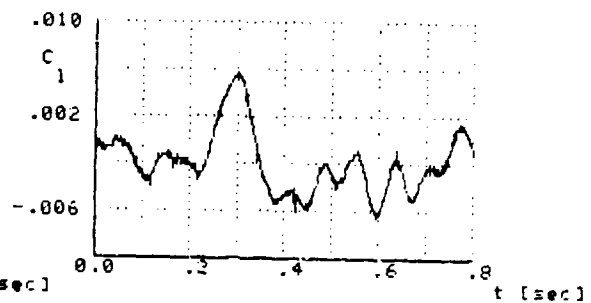
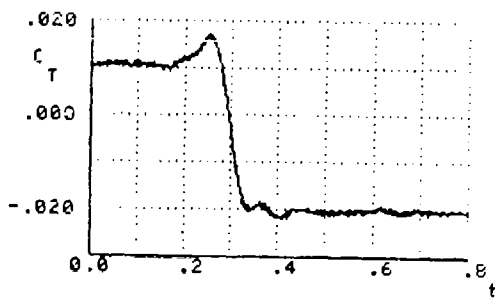
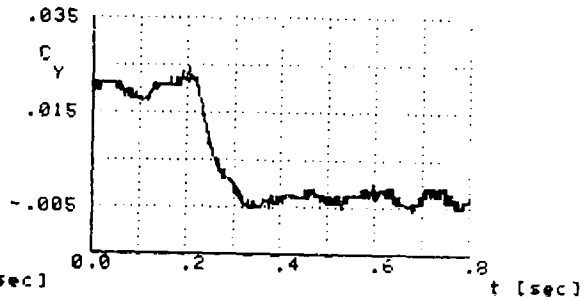
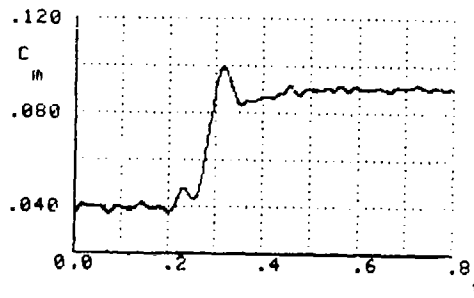
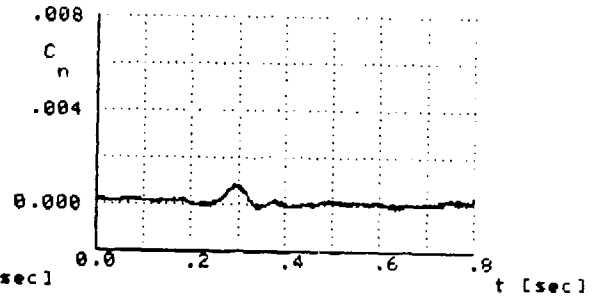
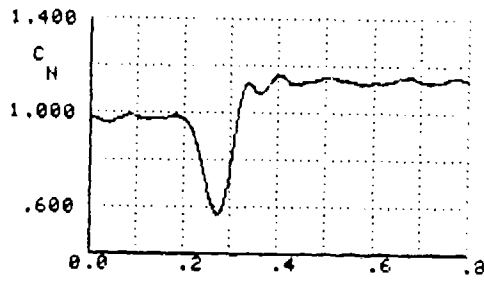
RUN = 3030  
ALPHA<sub>1</sub> = 54 deg  
DALPHA<sub>2</sub> = 32 deg  
T/2 = 125 msec

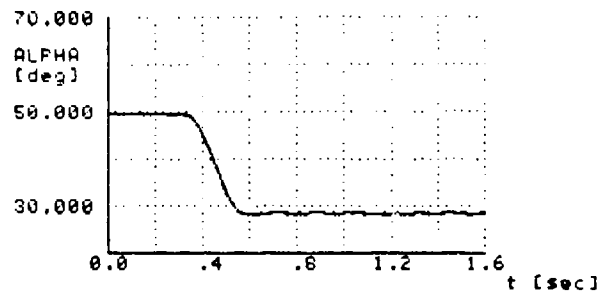




# HALF (1-COS) INPUT NOSE DOWN

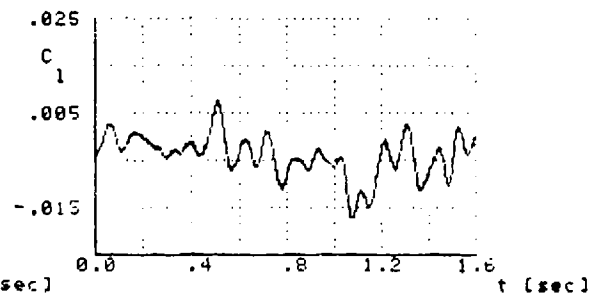
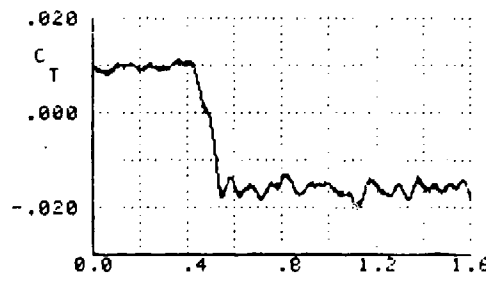
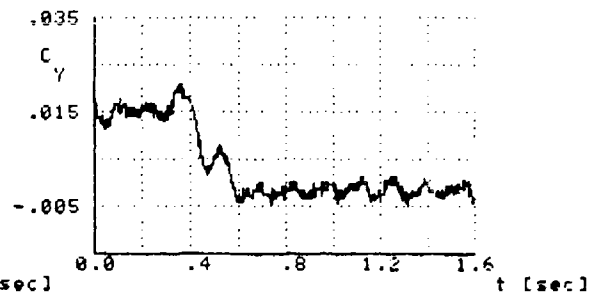
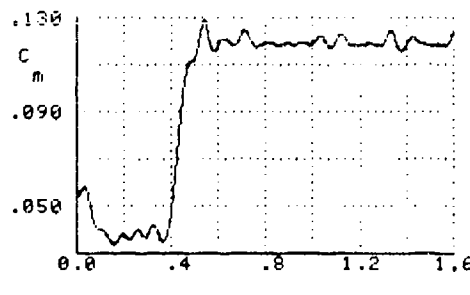
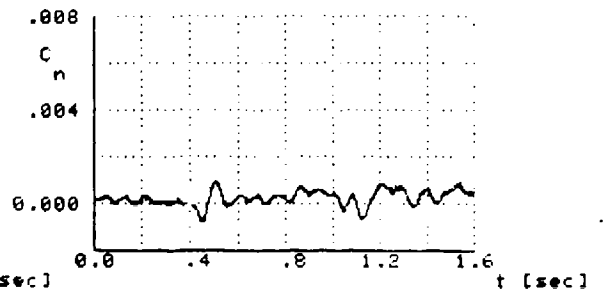
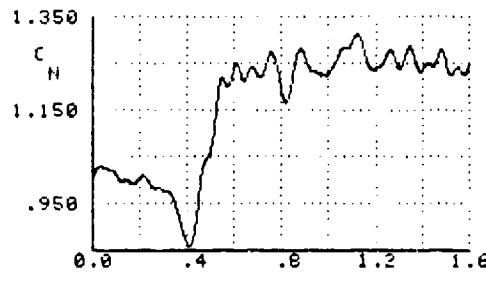
RUN = 3031  
ALPHA<sub>0</sub> = 54 deg  
DALPHA<sub>0</sub> = 32 deg  
T/2 = 100 msec

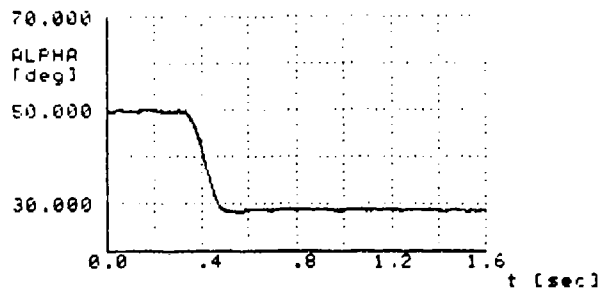




# HALF (1-COS) INPUT NOSE DOWN

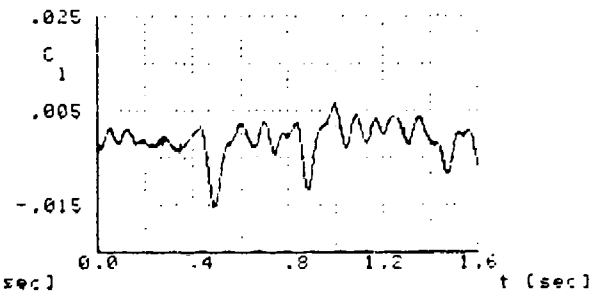
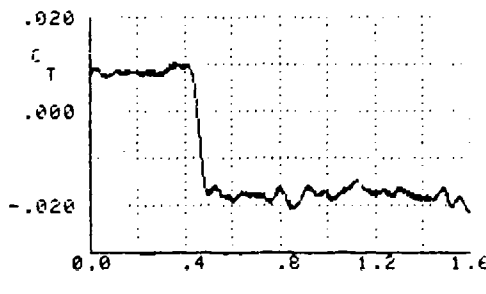
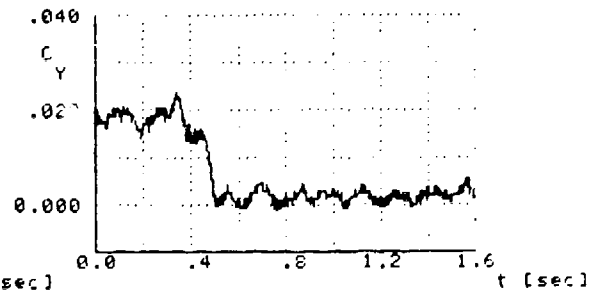
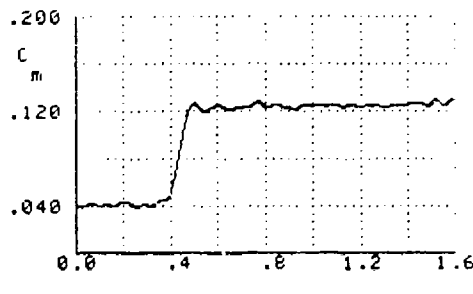
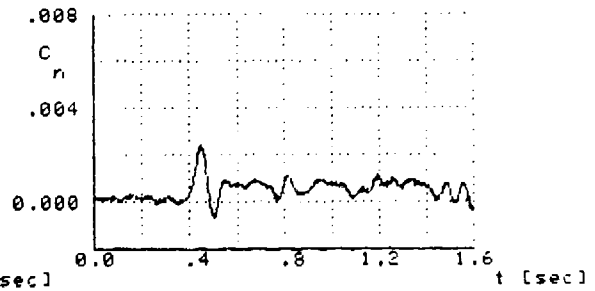
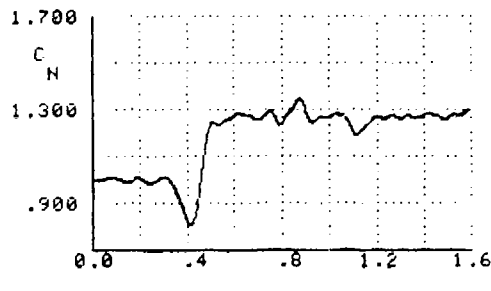
RUN = 3032  
 ALPHA<sub>a</sub> = 54 deg  
 D<sub>ALPHA</sub><sub>a</sub> = 24 deg  
 T/2 = 250 msec



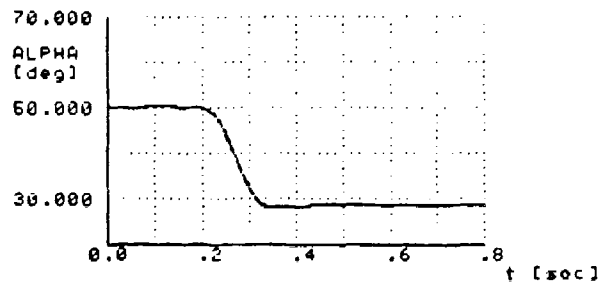


# HALF (1-COS) INPUT NOSE DOWN

RUN = 3033  
 ALPHA<sub>a</sub> = 54 deg  
 DALPHA<sub>a</sub> = 24 deg  
 T/2 = 167 msec

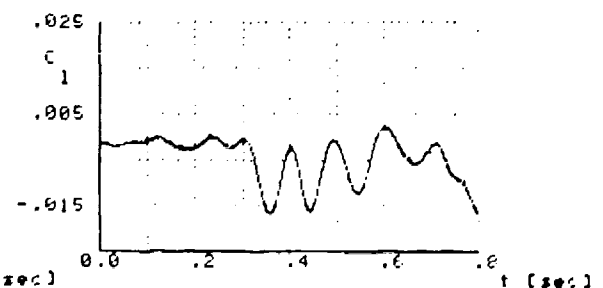
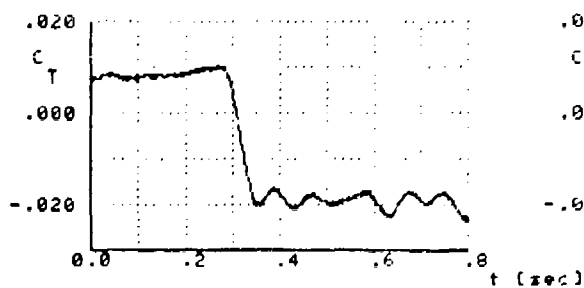
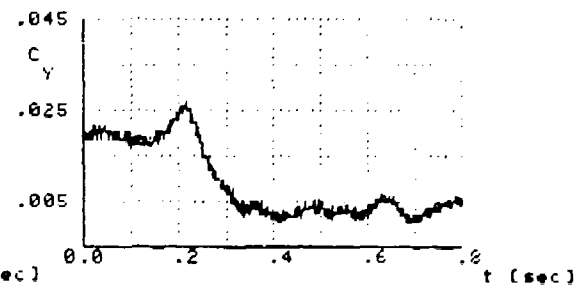
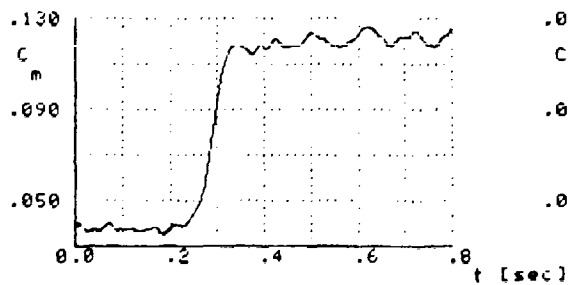
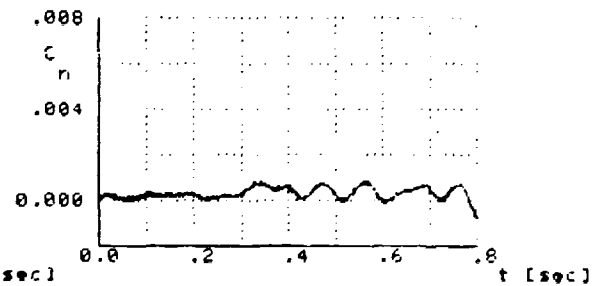
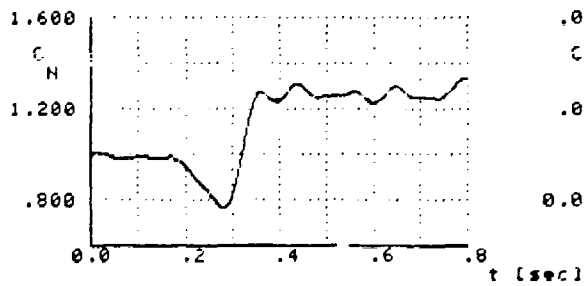


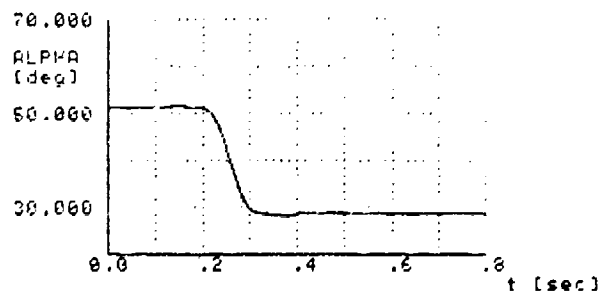




# HALF (1-COS) INPUT NOSE DOWN

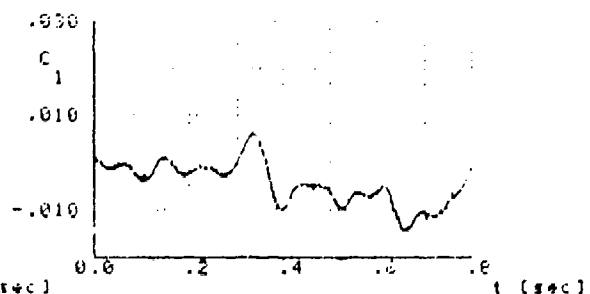
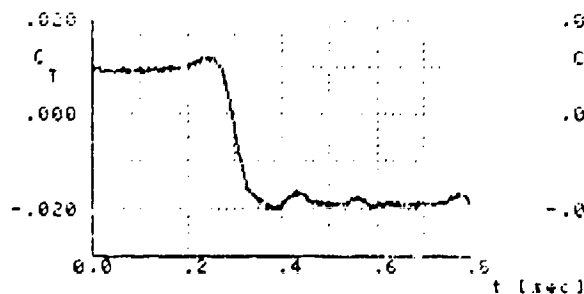
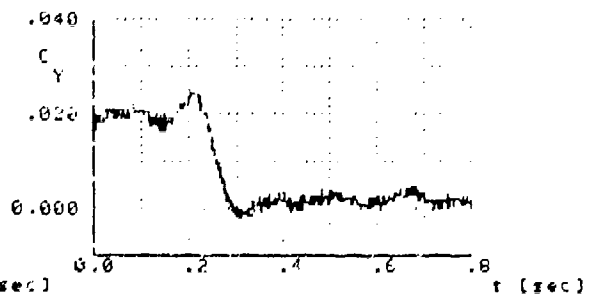
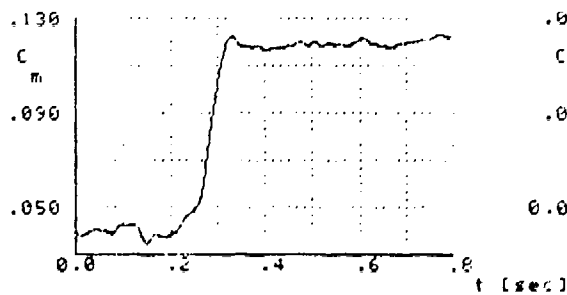
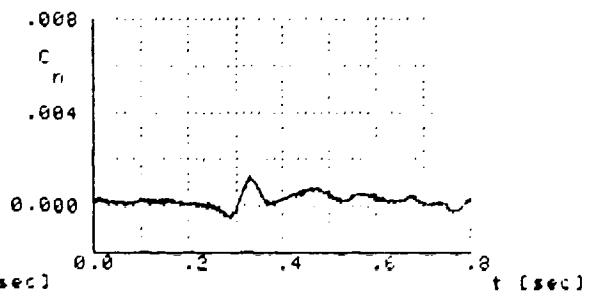
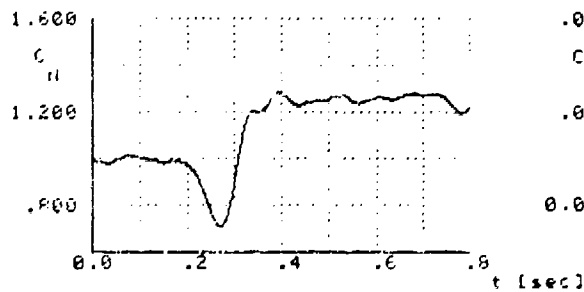
RUN = 3934  
 $\alpha_a$  = 54 deg  
 $\Delta\alpha_a$  = 24 deg  
 $T/2$  = 125 msec

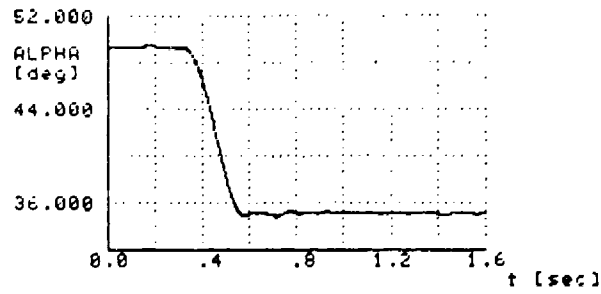




# HALF (1-COS) INPUT NOSE DOWN

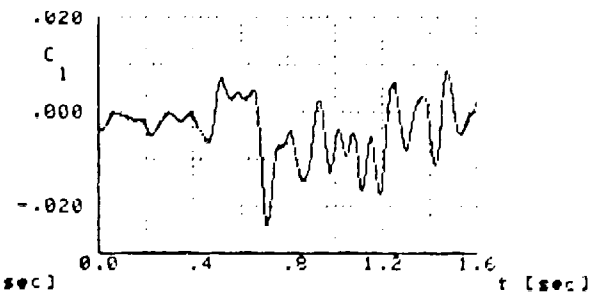
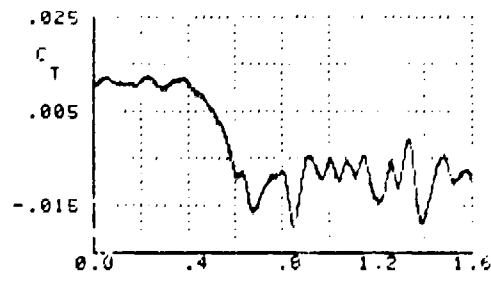
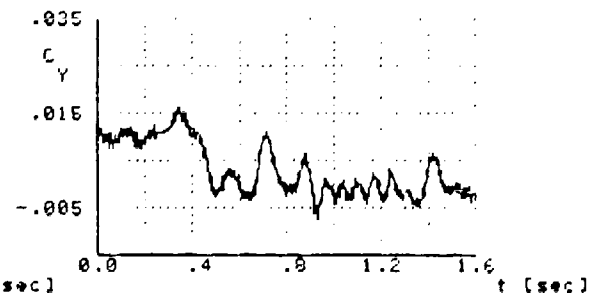
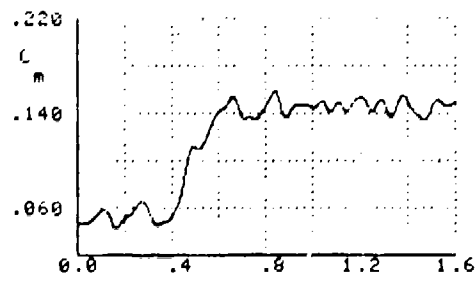
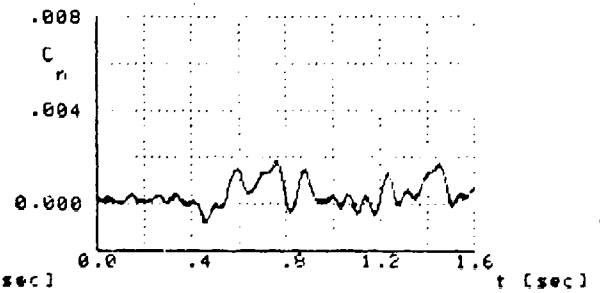
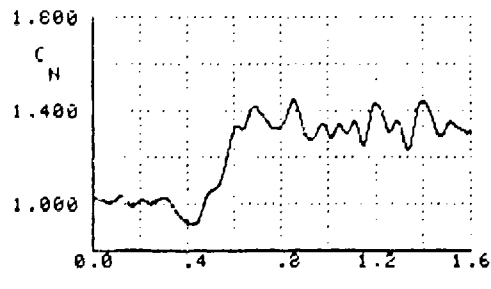
PUN = 3035  
 ALPHA<sub>0</sub> = 54 deg  
 DALPHA<sub>0</sub> = 24 deg  
 T/2 = 100 msec

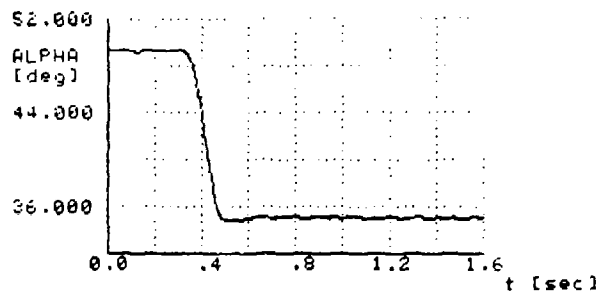




# HALF (1-COS) INPUT NOSE DOWN

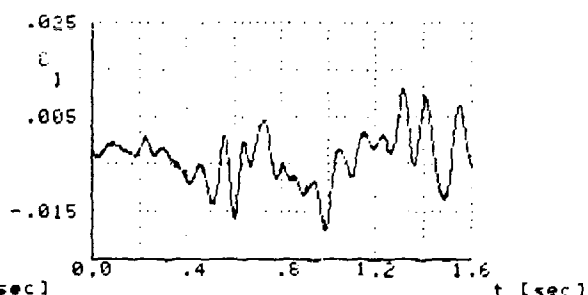
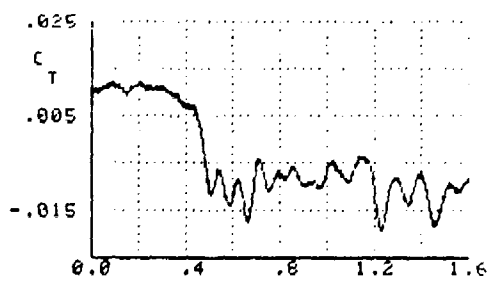
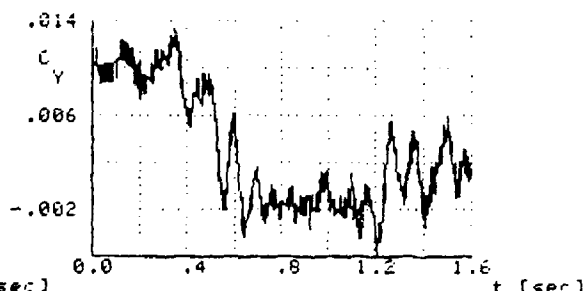
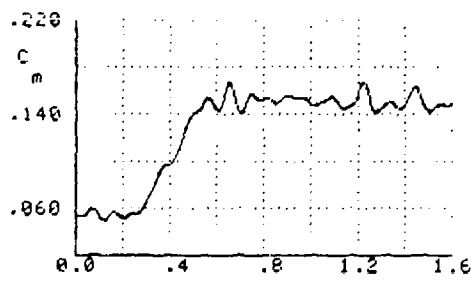
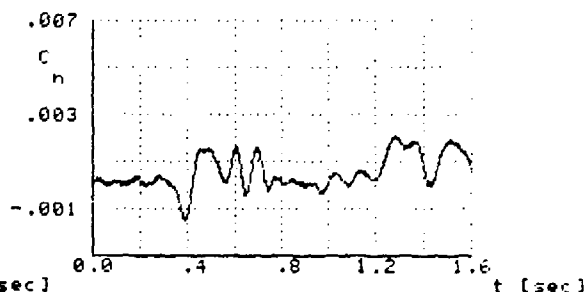
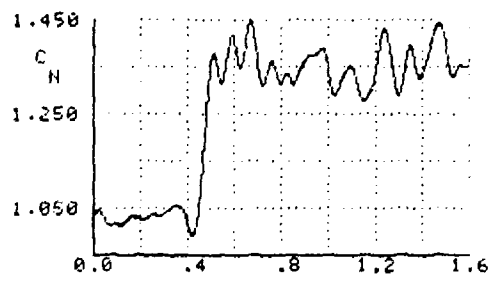
RUN = 3036  
 ALPHA<sub>a</sub> = 54 deg  
 DALPHA<sub>a</sub> = 16 deg  
 T/2 = 250 msec

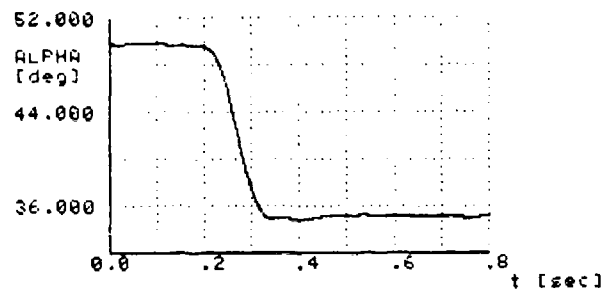




# HALF (1-COS) INPUT NOSE DOWN

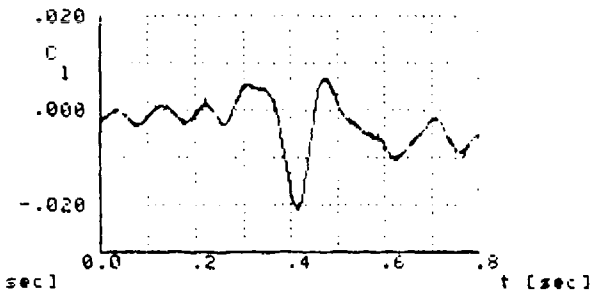
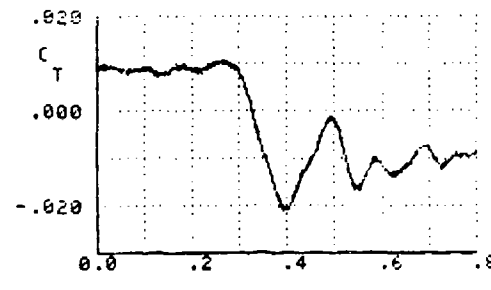
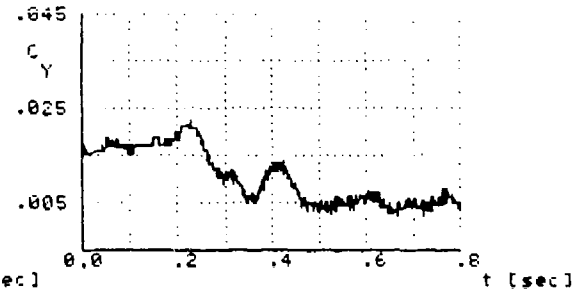
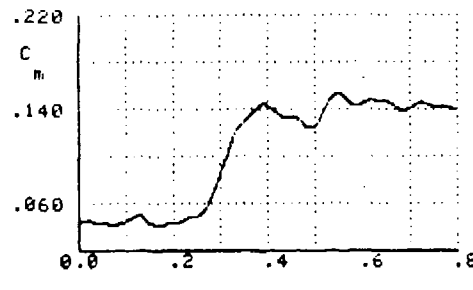
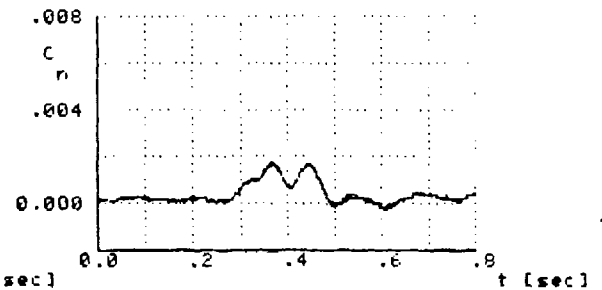
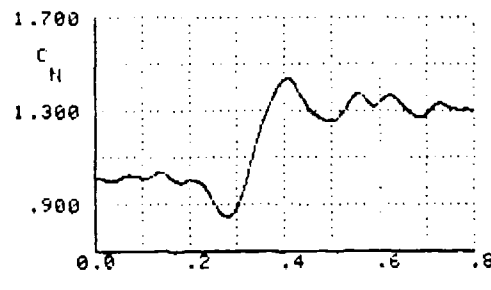
$\text{FON} = 3037$   
 $\text{ALPHA}_a = 54 \text{ deg}$   
 $\text{DALPHA}_a = 16 \text{ deg}$   
 $T/2 = 167 \text{ msec}$

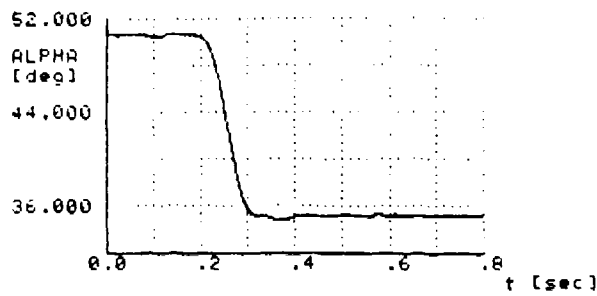




# HALF (1-COS) INPUT NOSE DOWN

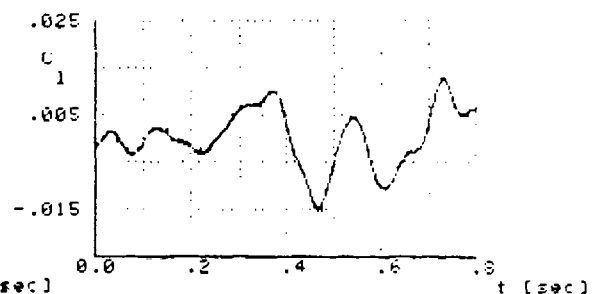
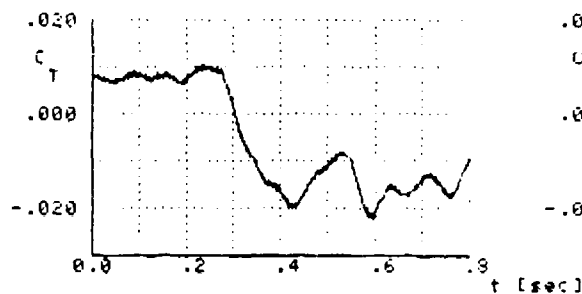
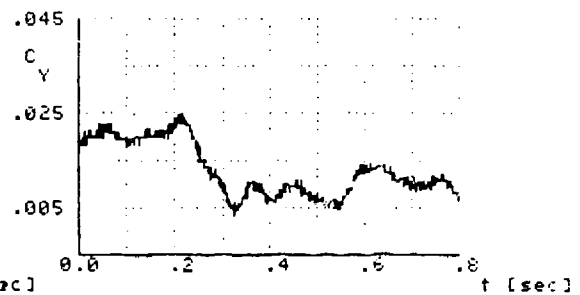
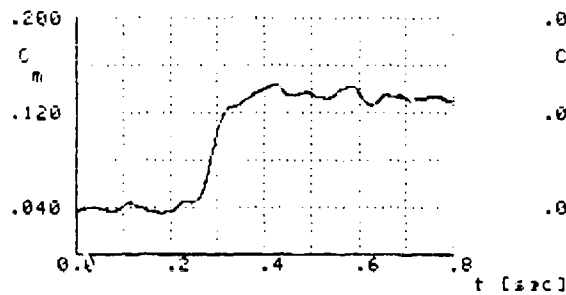
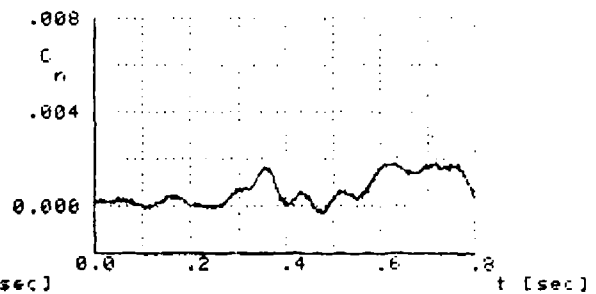
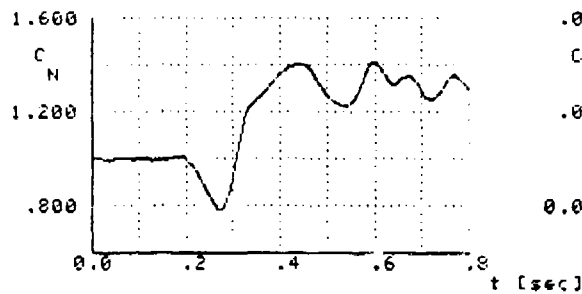
RUN = 3038  
ALPHA<sub>0</sub> = 54 deg  
DALPHA<sub>0</sub> = 16 deg  
T/2 = 125 msec

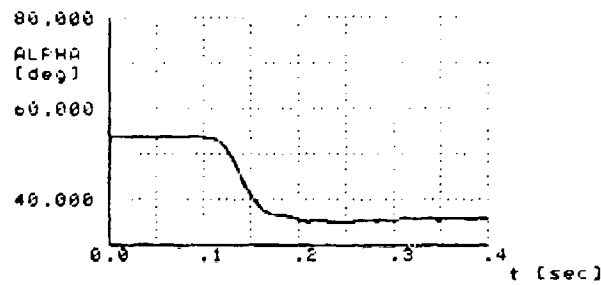




# HALF (1-COS) INPUT NOSE DOWN

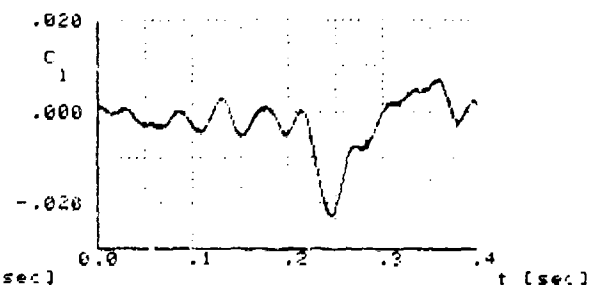
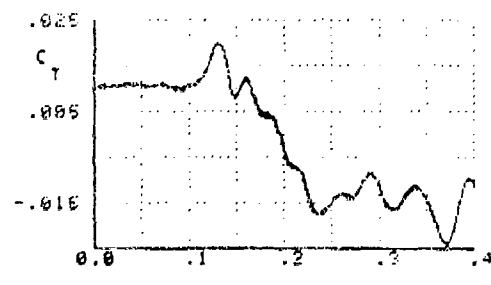
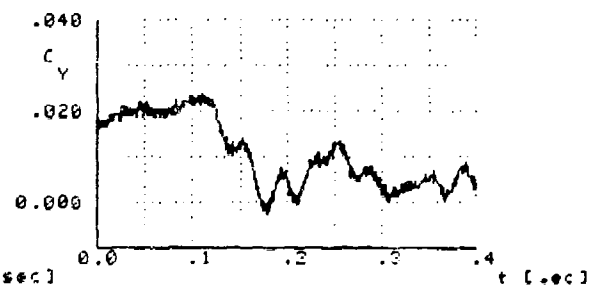
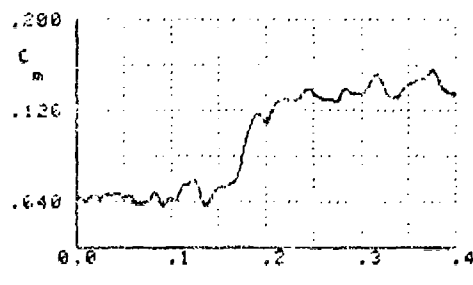
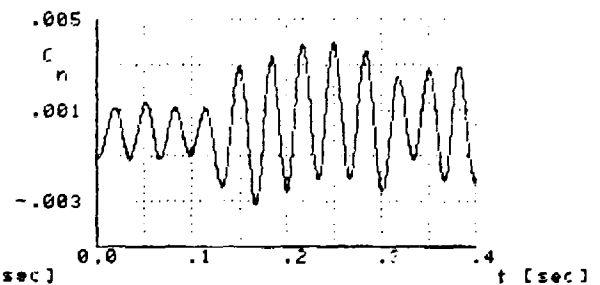
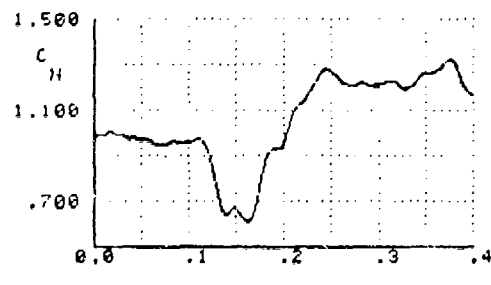
RUN = 3039  
 $\text{ALPHA}_a = 54 \text{ deg}$   
 $\text{DALPHA}_a = 16 \text{ deg}$   
 $T/2 = 100 \text{ msec}$

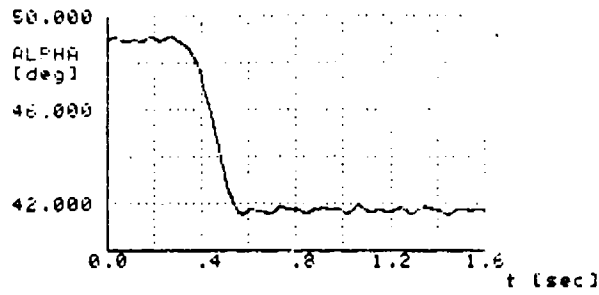




# HALF (1-COS) INPUT NOSE DOWN

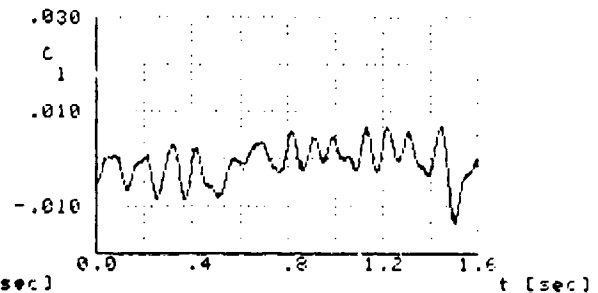
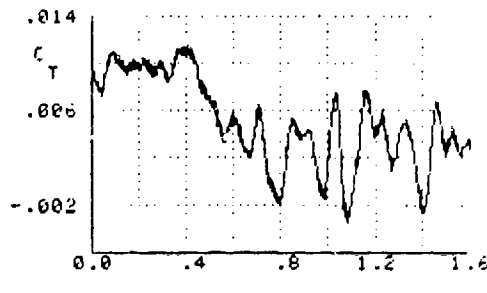
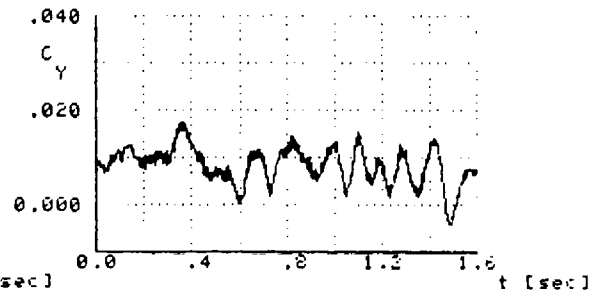
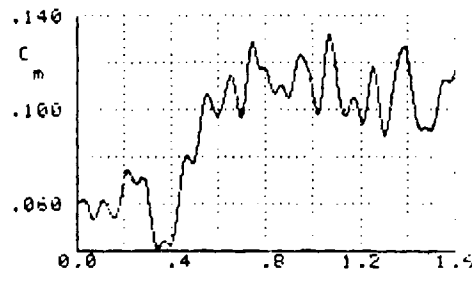
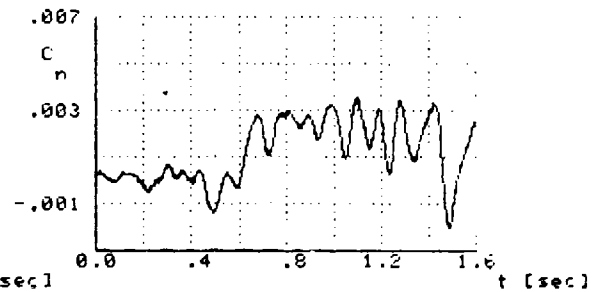
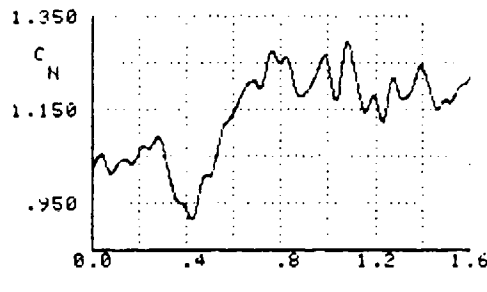
RUN = 3040  
ALPHA<sub>0</sub> = 54 deg  
DALPHA<sub>0</sub> = 16 deg  
T/2 = 63 msec



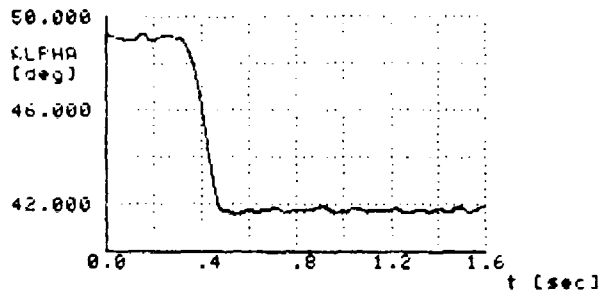


# HALF (1-COS) INPUT NOSE DOWN

RUN = 3041  
ALPHA<sub>A</sub> = 54 deg  
DALPHA<sub>A</sub> = 8 deg  
T/2 = 250 msec

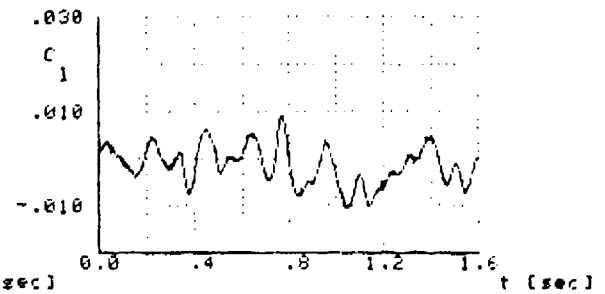
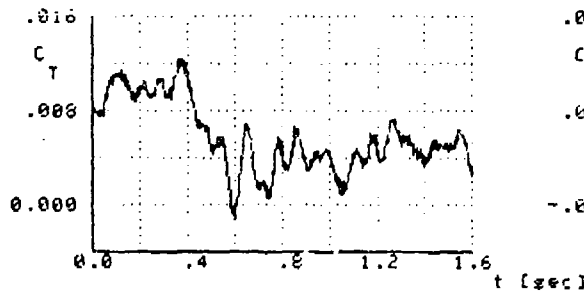
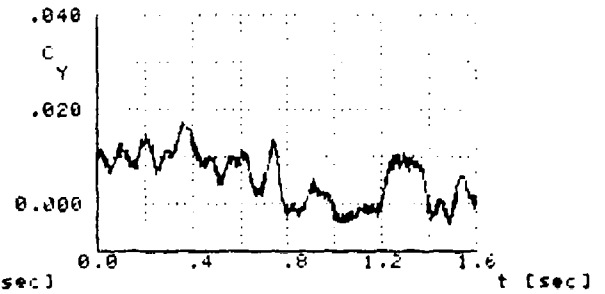
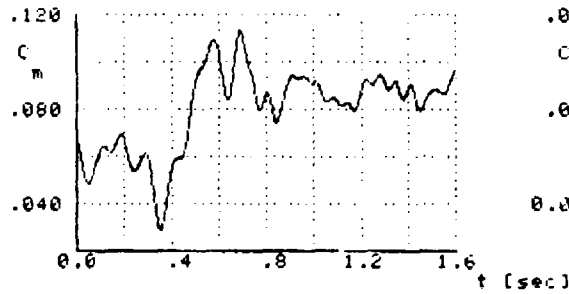
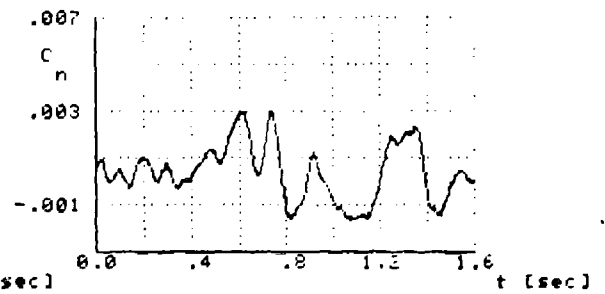
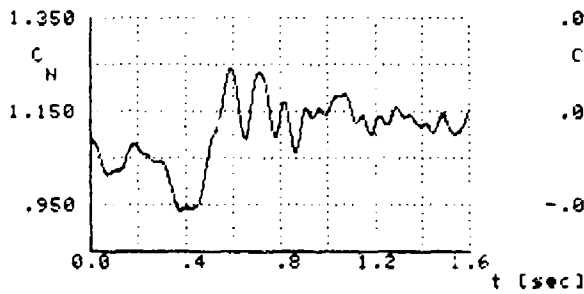


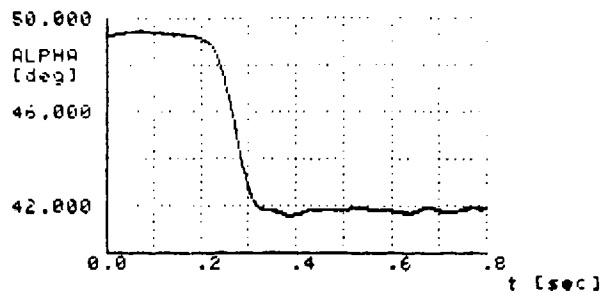




# HALF (1-COS) INPUT NOSE DOWN

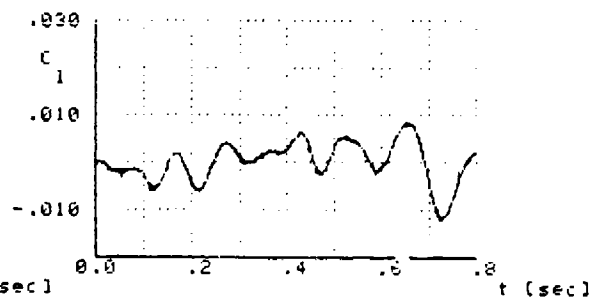
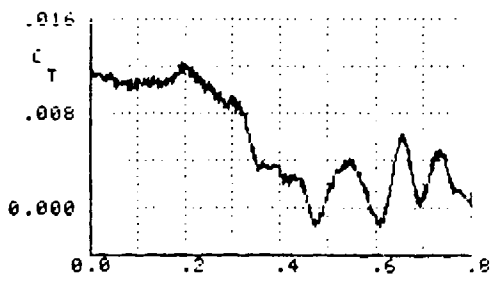
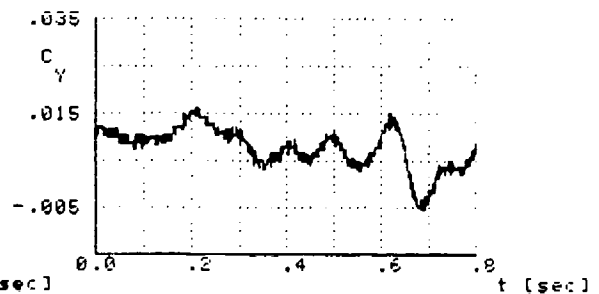
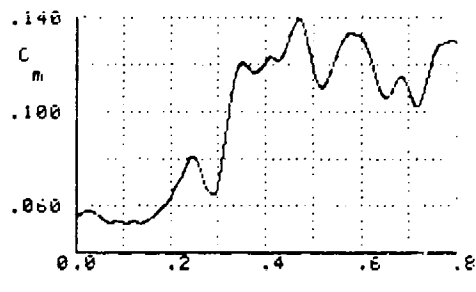
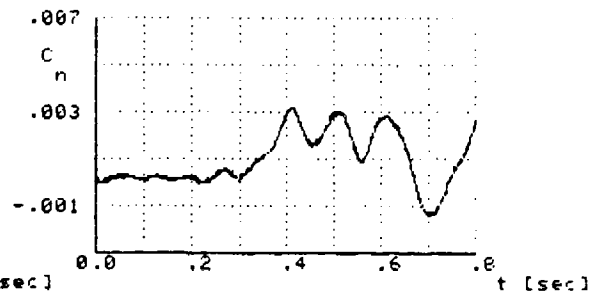
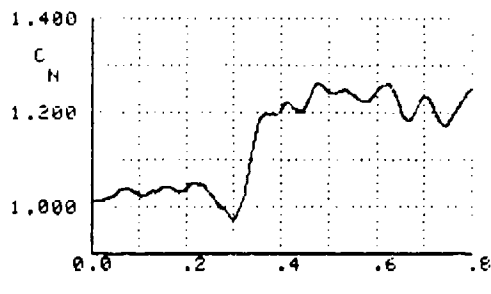
RUN = 3042  
ALPHA<sub>a</sub> = 54 deg  
DALPHA<sub>a</sub> = 8 deg  
T/2 = 167 msec

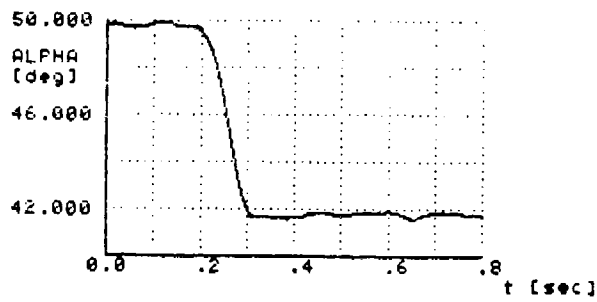




# HALF (1-COS) INPUT NOSE DOWN

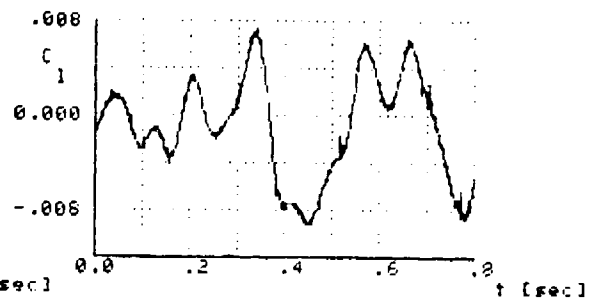
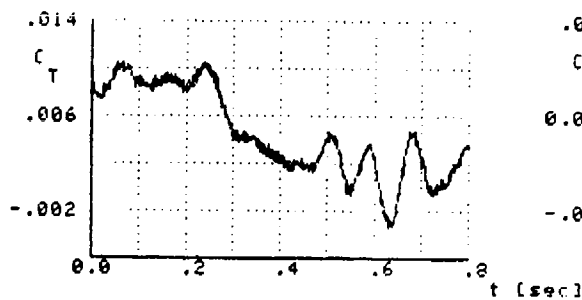
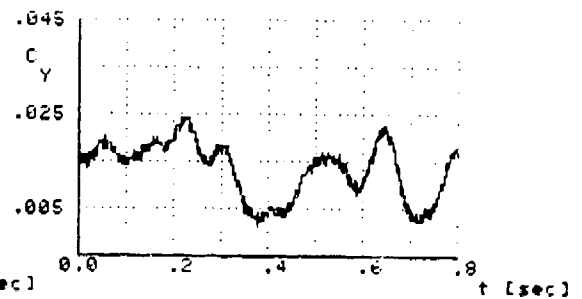
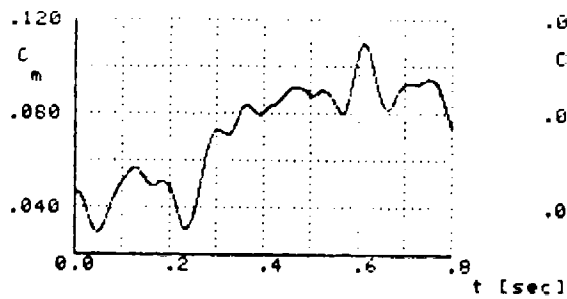
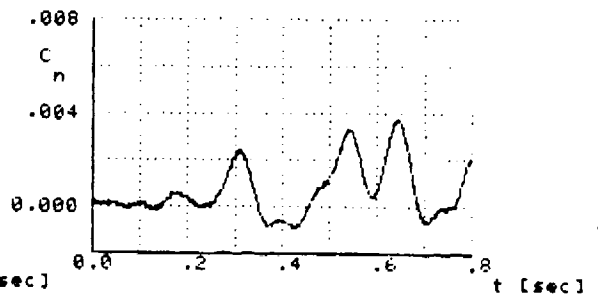
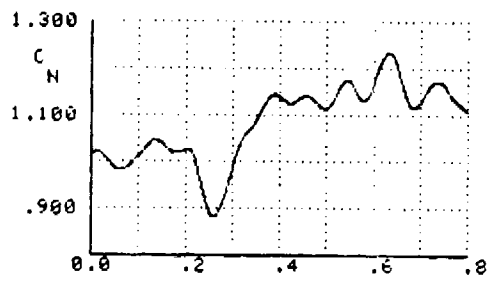
RUN = 3043  
 $\text{ALPHA}_a = 54 \text{ deg}$   
 $\text{DALPHA}_a = 8 \text{ deg}$   
 $T/2 = 125 \text{ msec}$

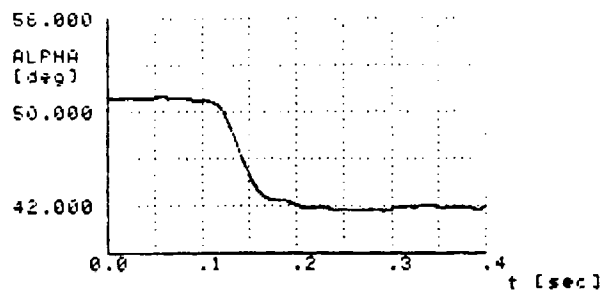




# HALF (1-COS) INPUT NOSE DOWN

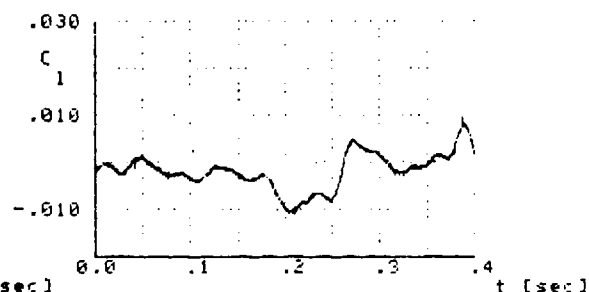
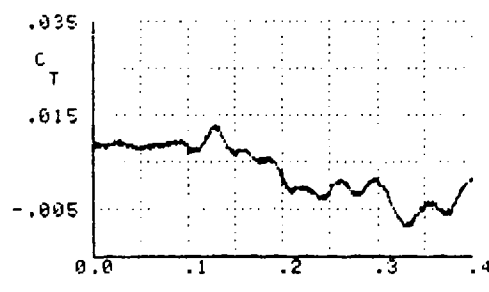
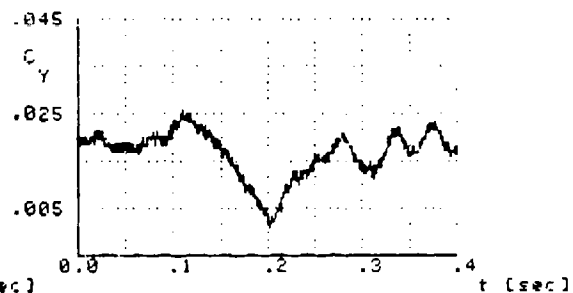
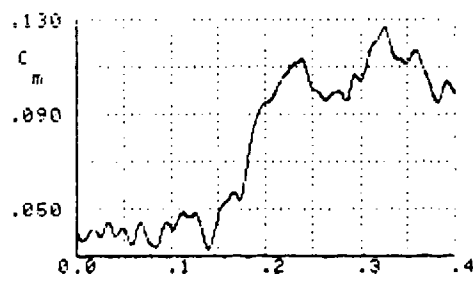
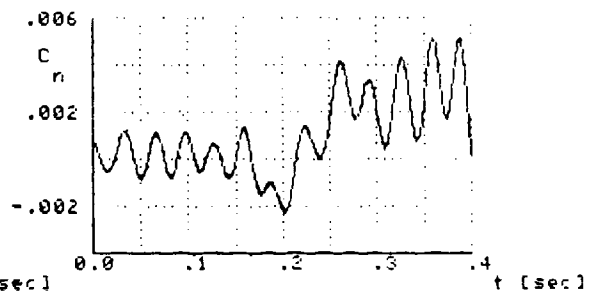
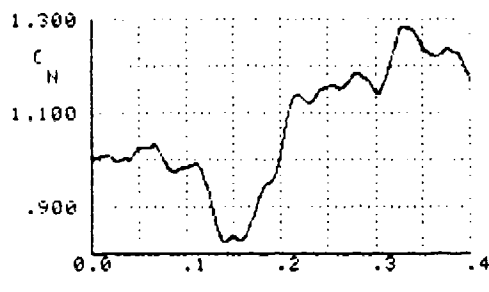
RUN = 3044  
ALPHA<sub>a</sub> = 54 deg  
DALPHA<sub>a</sub> = 8 deg  
T/2 = 100 m.sec

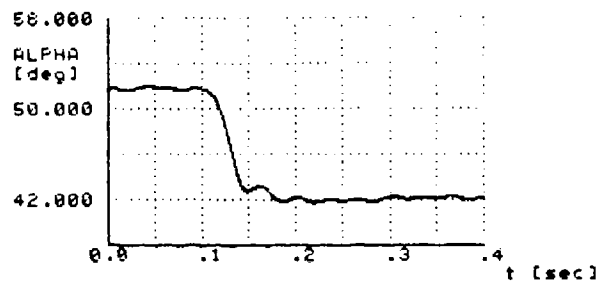




# HALF (1-COS) INPUT NOSE DOWN

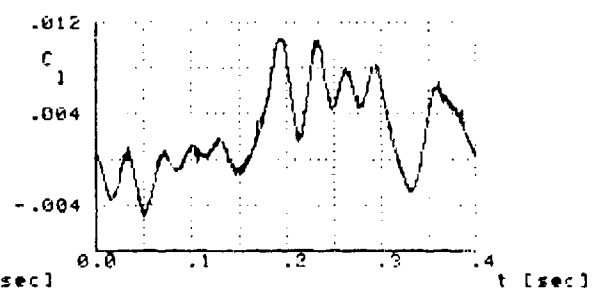
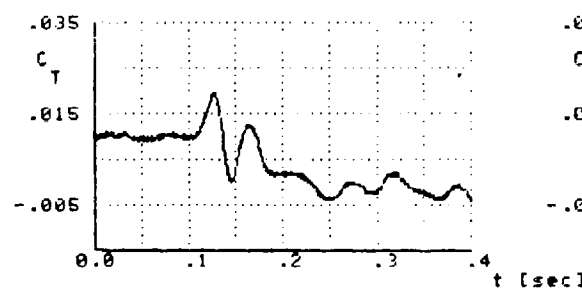
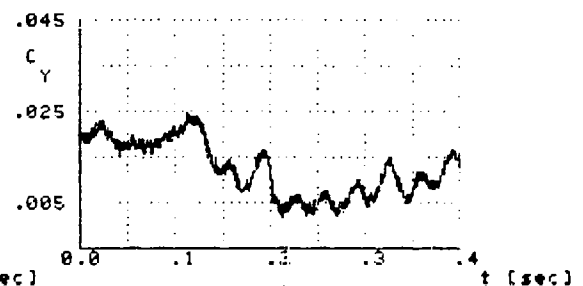
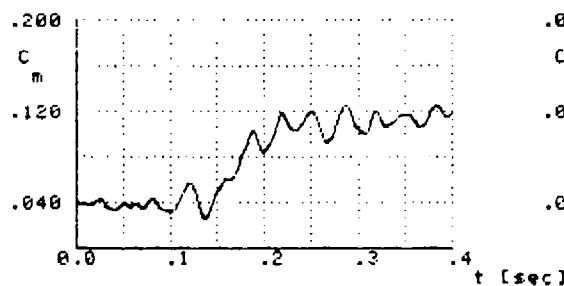
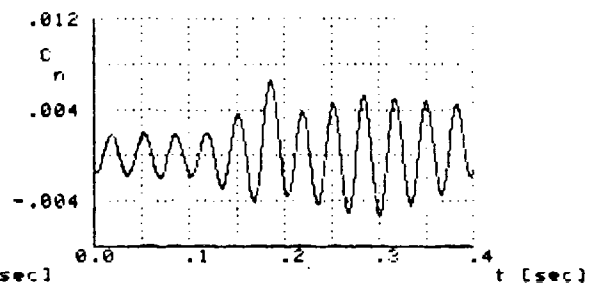
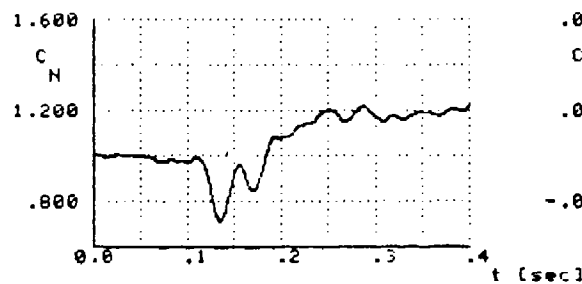
RUN = 3045  
 ALPHA<sub>a</sub> = 54 deg  
 DALPHA<sub>a</sub> = 8 deg  
 T/2 = 63 msec

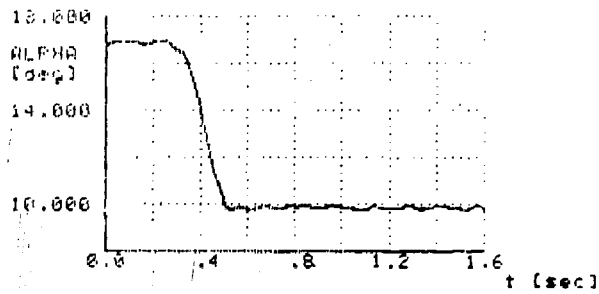




# HALF (1-COS) INPUT NOSE DOWN

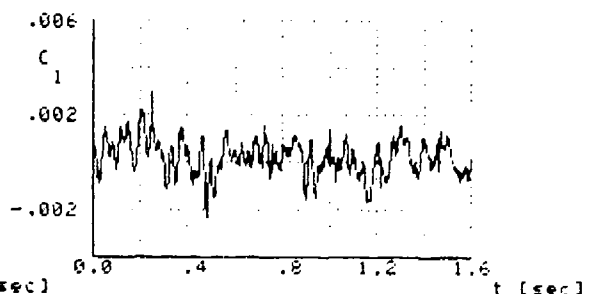
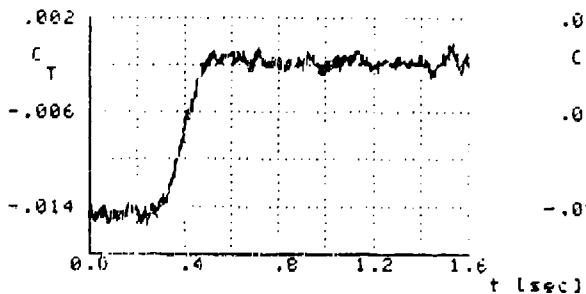
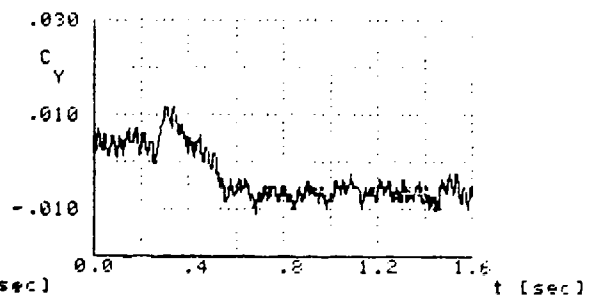
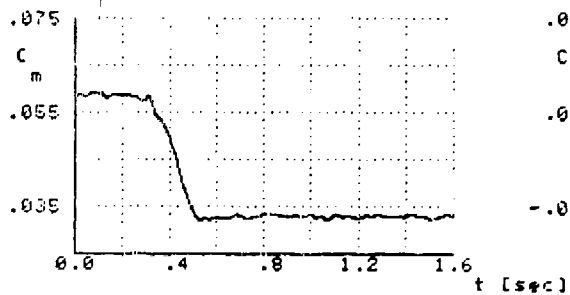
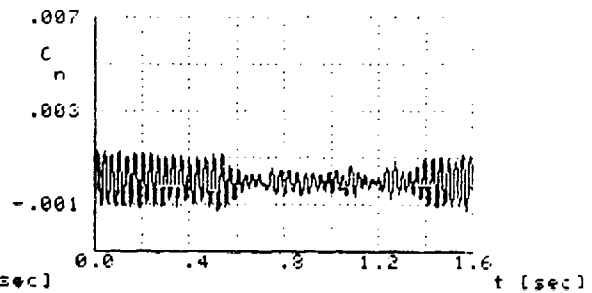
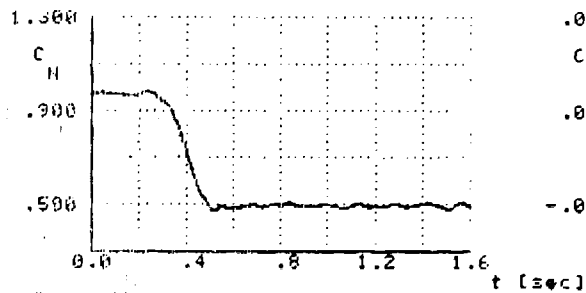
RUN = 3046  
ALPHA<sub>2</sub> = 54 deg  
DALPHA<sub>2</sub> = 8 deg  
T/2 = 42 msec

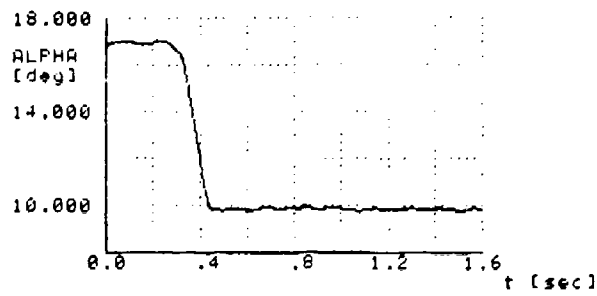




# HALF (1-COS) INPUT NOISE DOWN

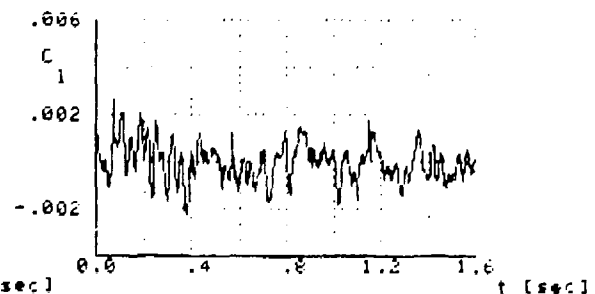
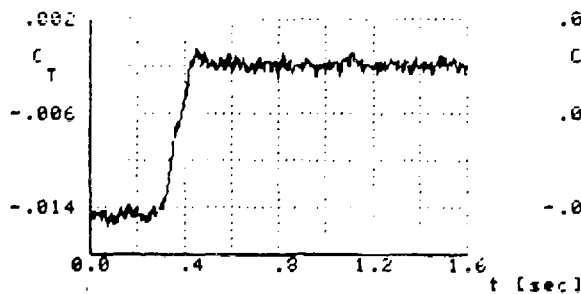
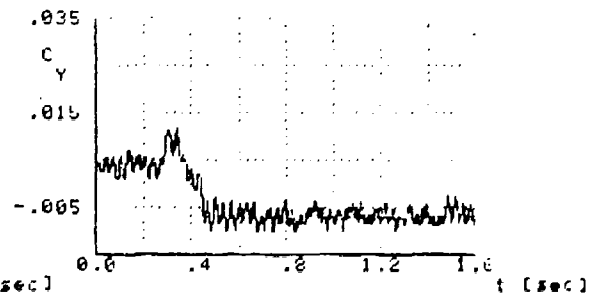
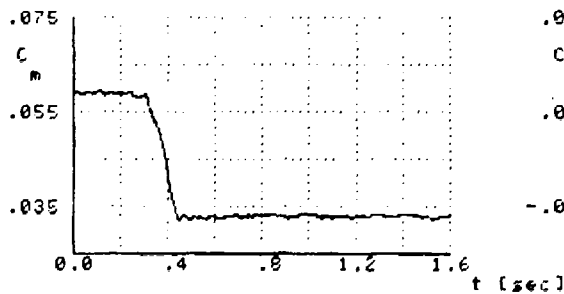
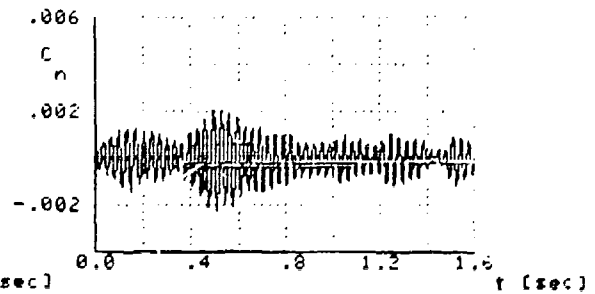
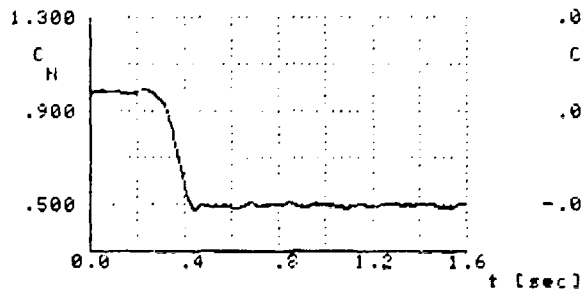
RUN = 3047  
 ALPHA<sub>a</sub> = 15 deg  
 DALPHA<sub>a</sub> = 8 deg  
 T/2 = 250 msec

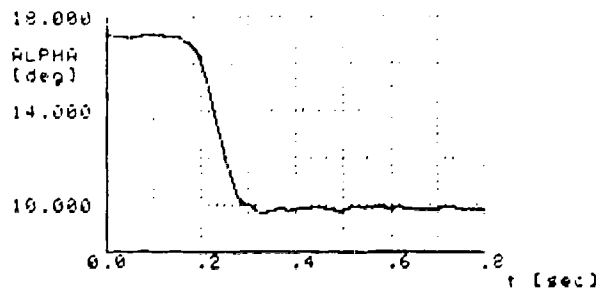




# HALF (1-COS) INPUT NOISE DOWN

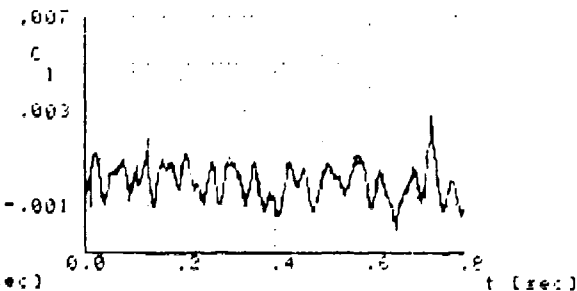
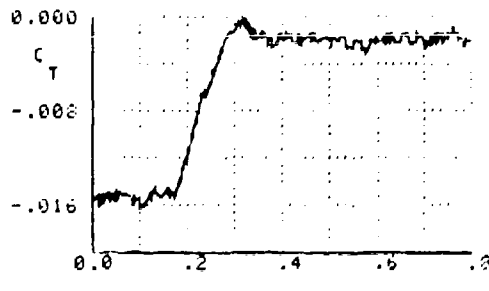
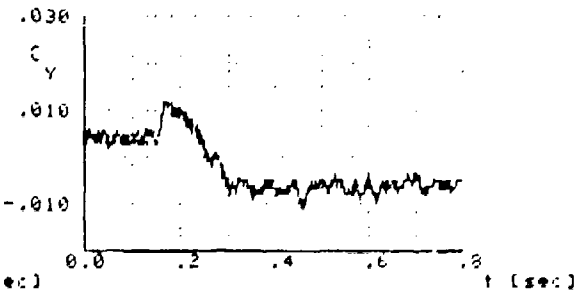
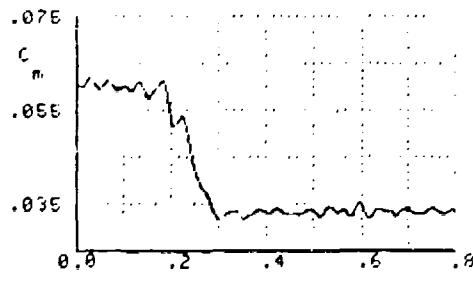
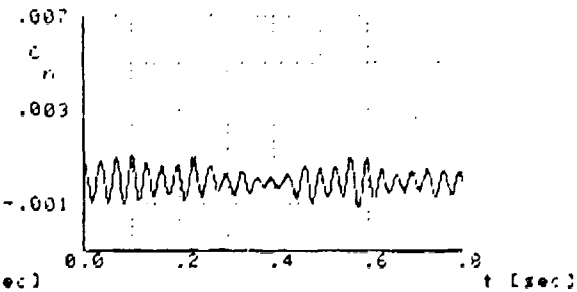
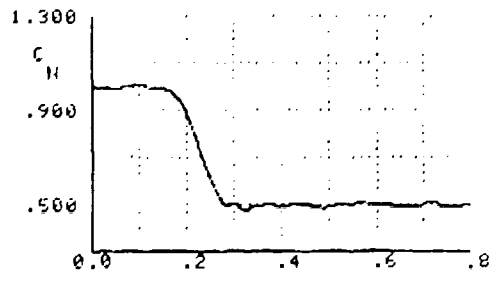
RUN = 3048  
ALPHA<sub>Δ</sub> = 16 deg  
DALPHA<sub>Δ</sub> = 8 deg  
T/2 = 167 msec



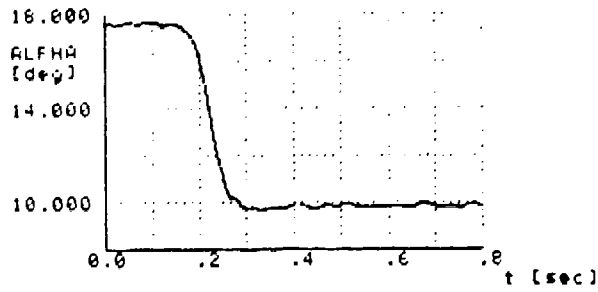


# HALF (1-COS) INPUT NOSE DOWN

RUN = 3049  
 ALPHA<sub>0</sub> = 15 deg  
 ΔALPHA = 8 deg  
 T/2 = 125 msec

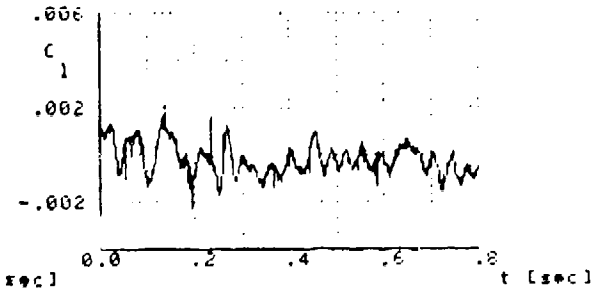
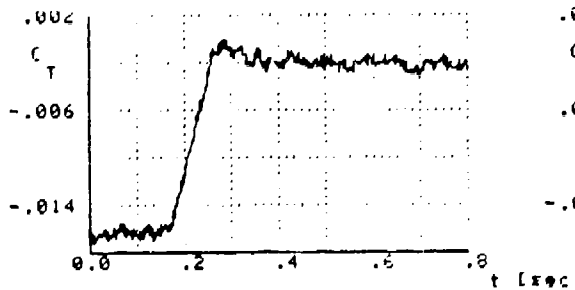
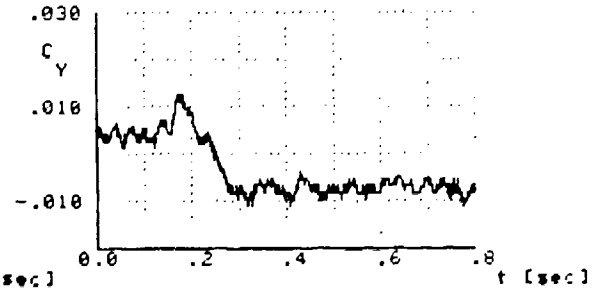
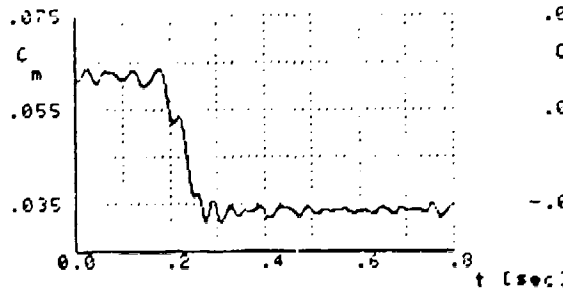
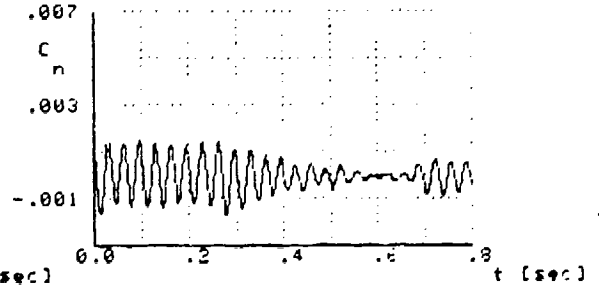
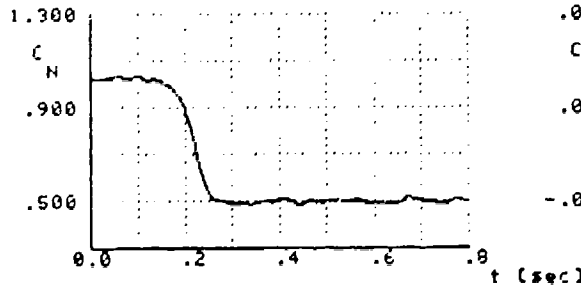


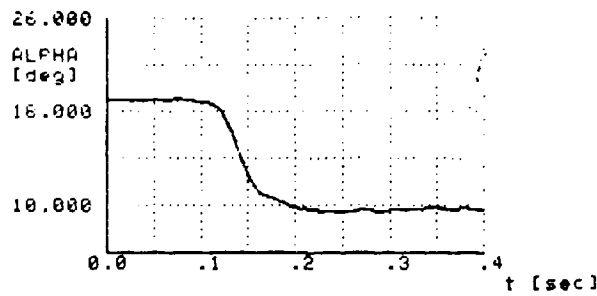




# HALF (1-COS) INPUT NOSE DOWN

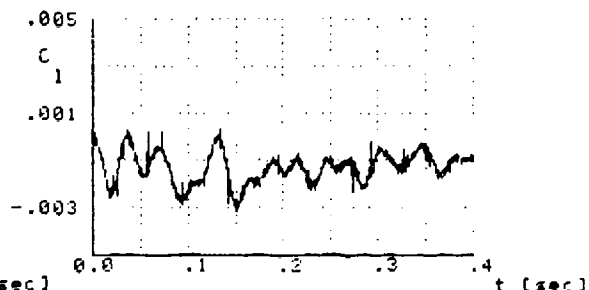
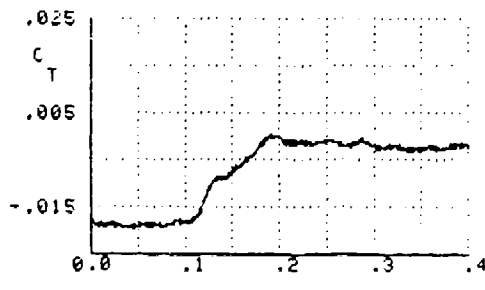
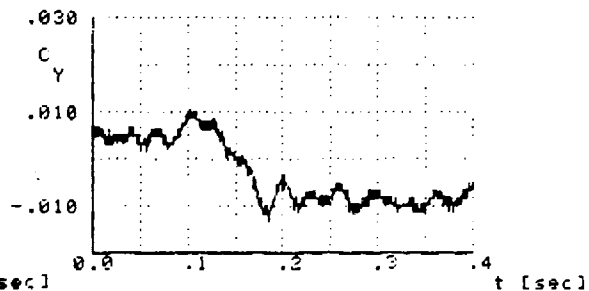
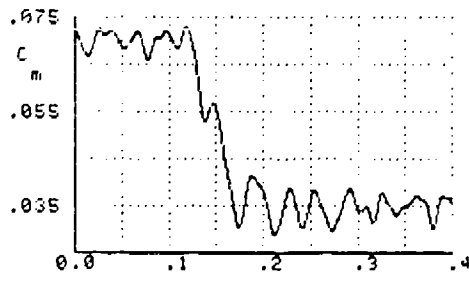
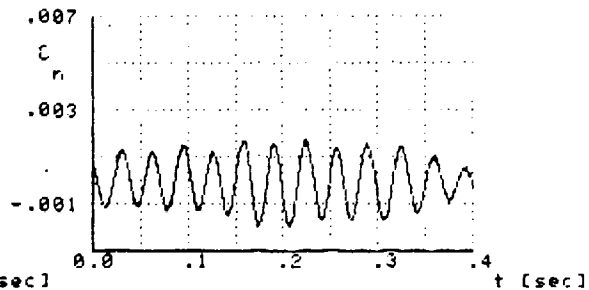
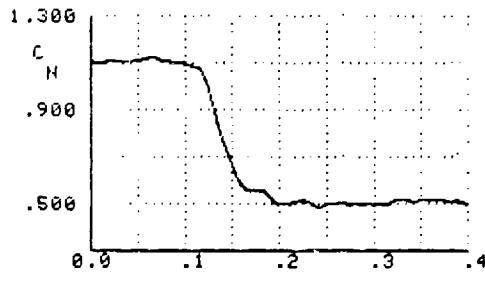
RUN = 3050  
ALPHA<sub>a</sub> = 16 deg  
DALPHA<sub>a</sub> = 8 deg  
T/2 = 100 msec

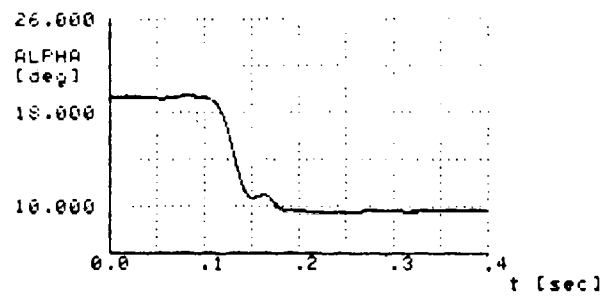




# HALF (1-COS) INPUT NOSE DOWN

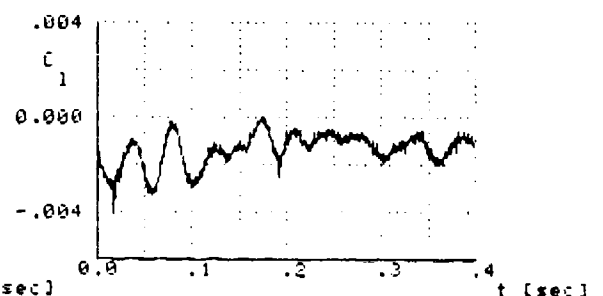
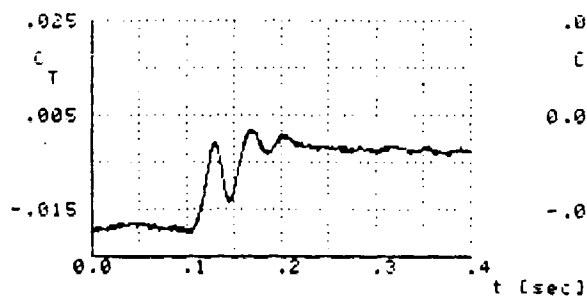
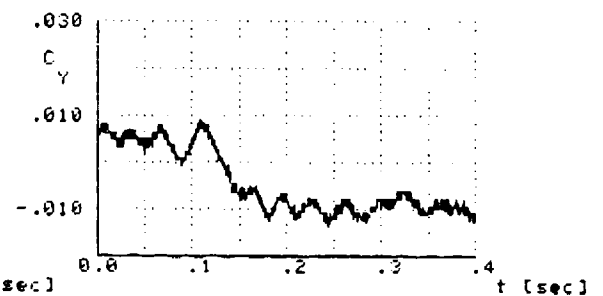
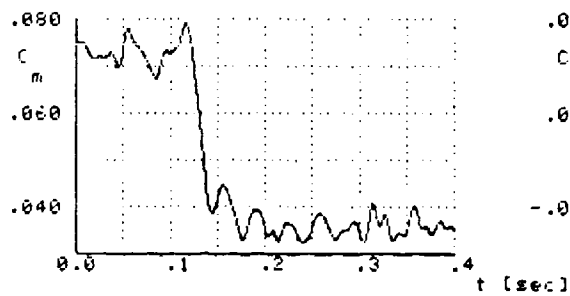
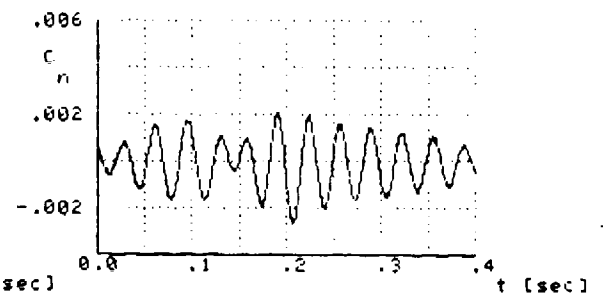
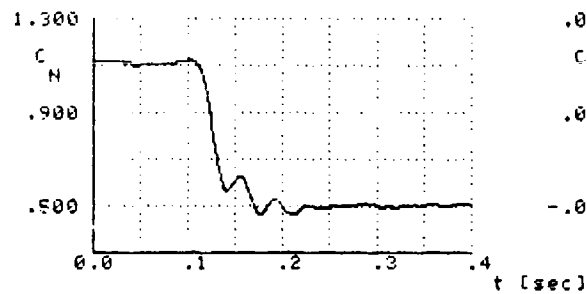
RUN = 3651  
ALPHA<sub>a</sub> = 16 deg  
DALPHA<sub>a</sub> = 8 deg  
T/2 = 63 msec

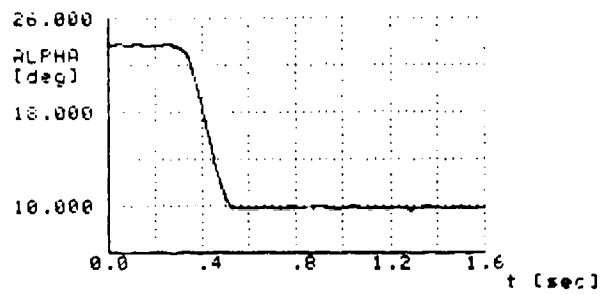




# HALF (1-COS) INPUT NOSE DOWN

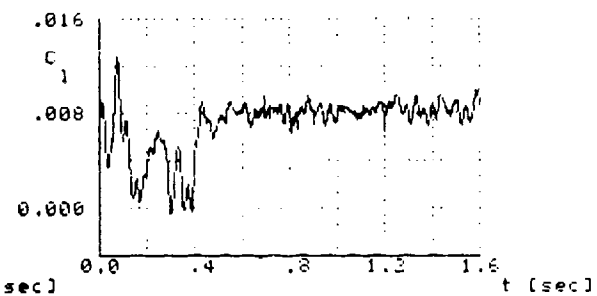
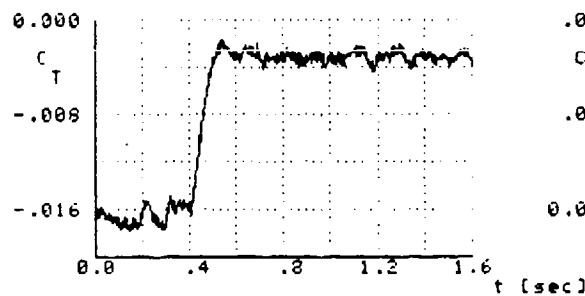
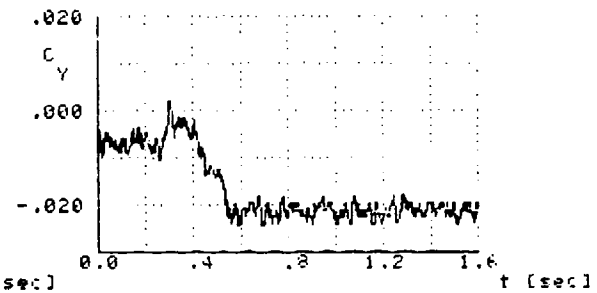
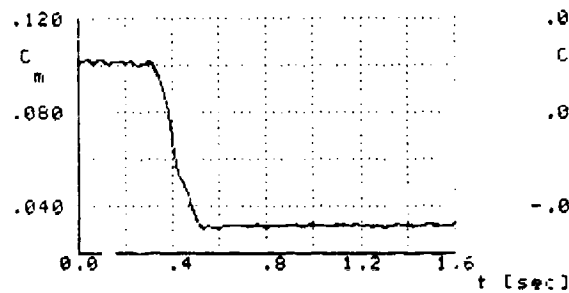
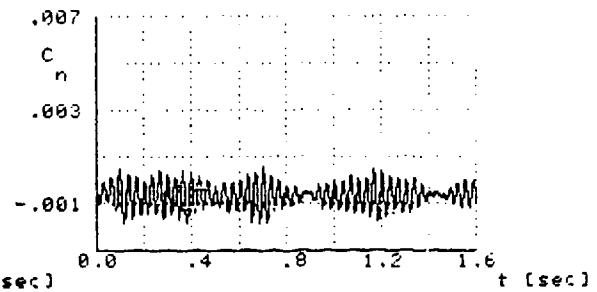
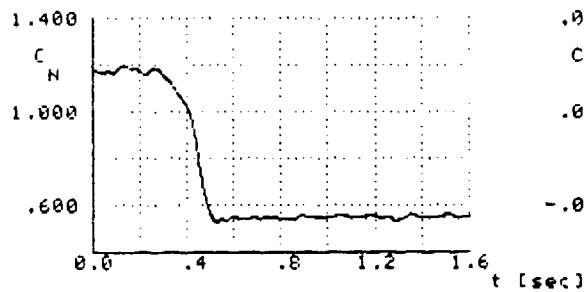
RUN = 3052  
 ALPHA<sub>a</sub> = 16 deg  
 DALPHA<sub>a</sub> = 8 deg  
 T/2 = 42 msec

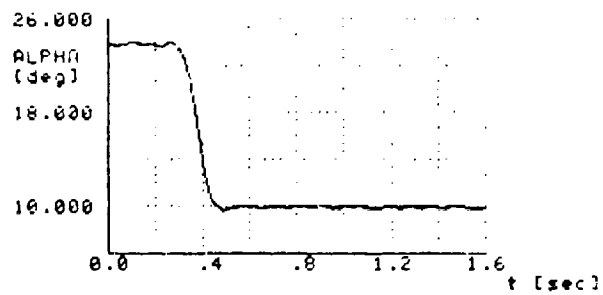




# HALF (1-COS) INPUT NOSE DOWN

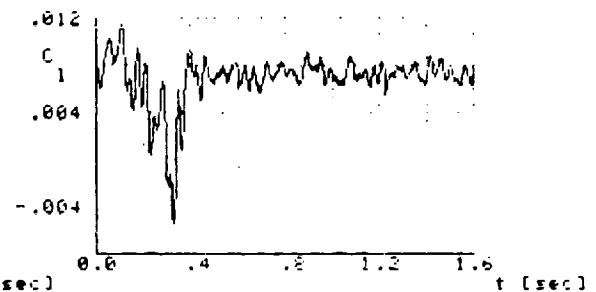
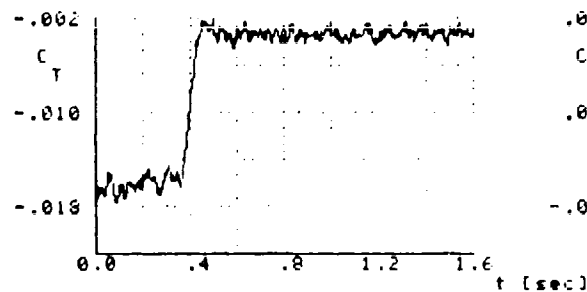
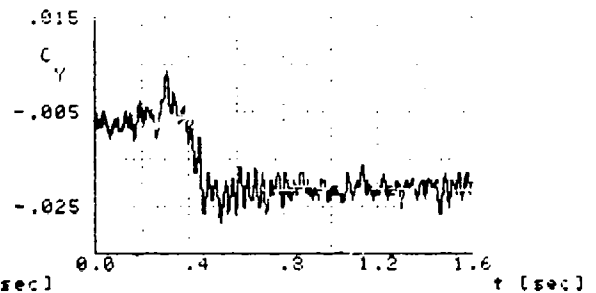
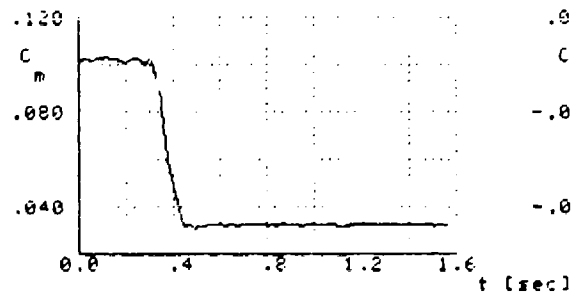
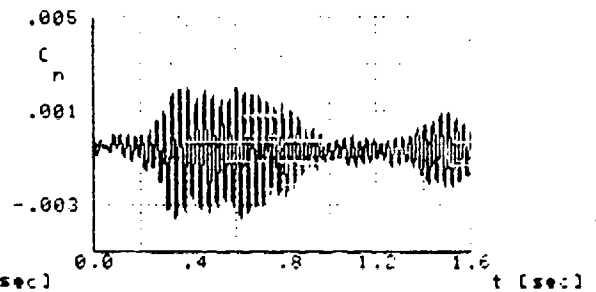
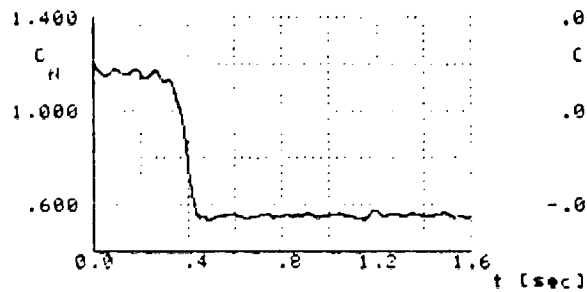
RUN = 3053  
ALPHA<sub>0</sub> = 24 deg  
DALPHA<sub>0</sub> = 16 deg  
T/2 = 250 msec

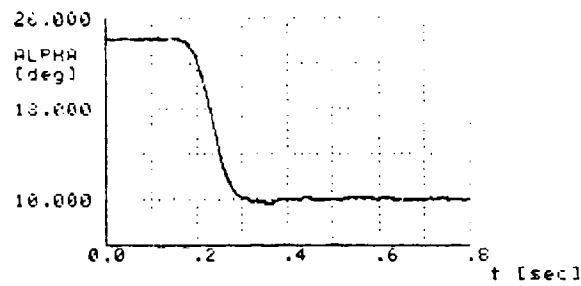




# HALF (1-COS) INPUT NOSE DOWN

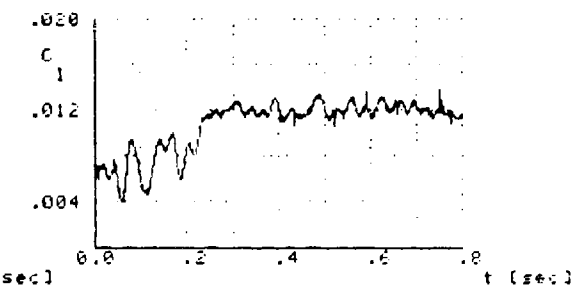
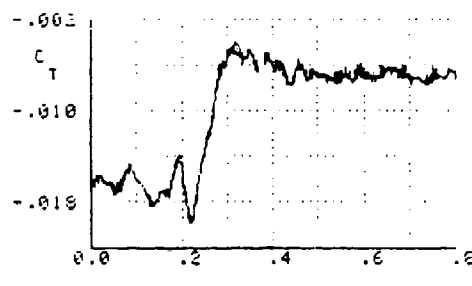
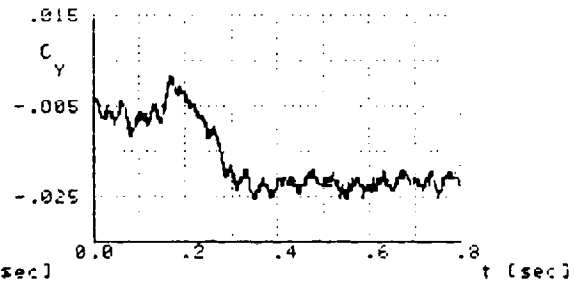
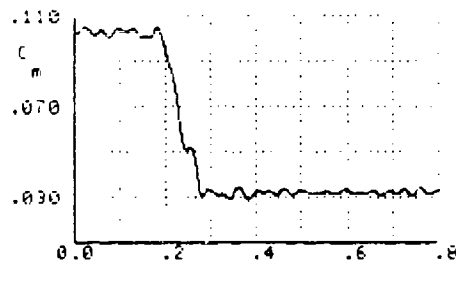
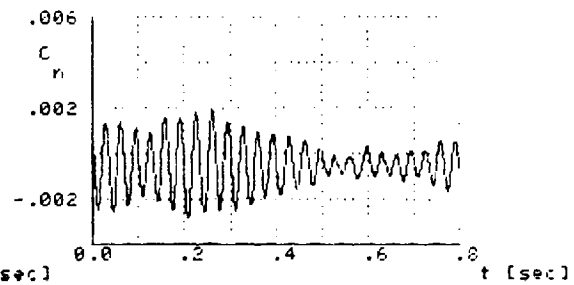
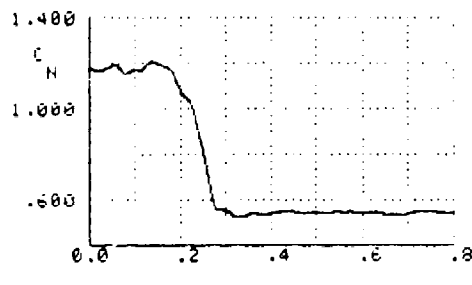
RUN = 3054  
 ALPHA<sub>Δ</sub> = 24 deg  
 DRALPHA<sub>Δ</sub> = 16 deg  
 T/2 = 167 msec

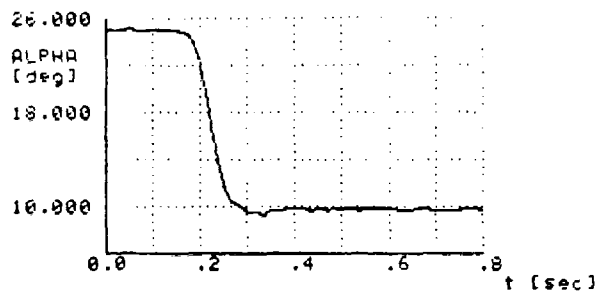




# HALF (1-COS) INPUT NOSE DOWN

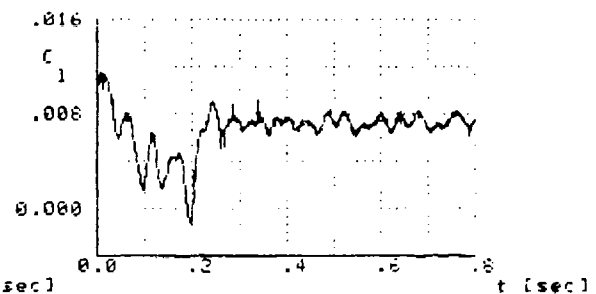
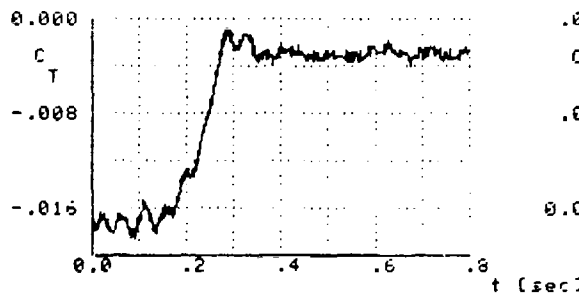
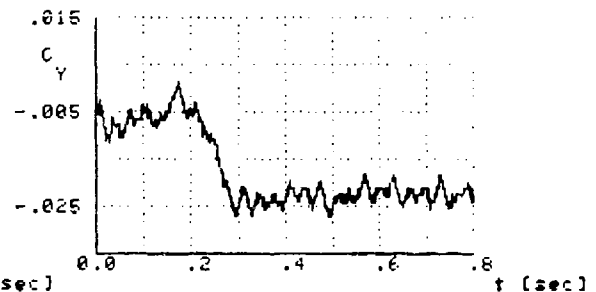
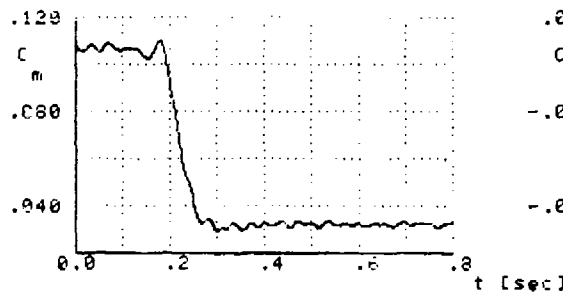
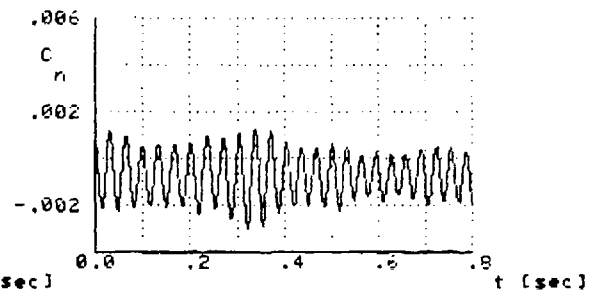
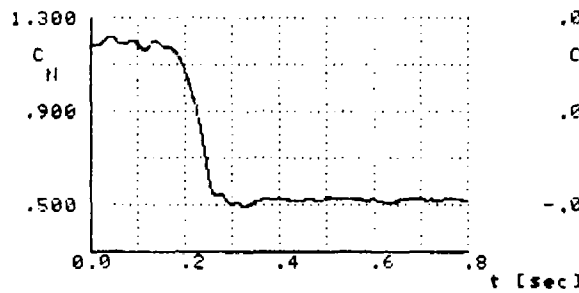
RUN = 3055  
 ALPHA<sub>a</sub> = 24 deg  
 DIALPHA<sub>a</sub> = 16 deg  
 T/2 = 125 msec

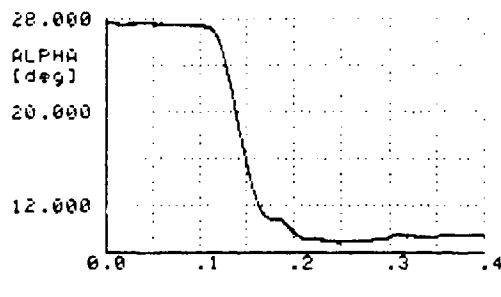




# HALF (1-COS) INPUT NOSE DOWN

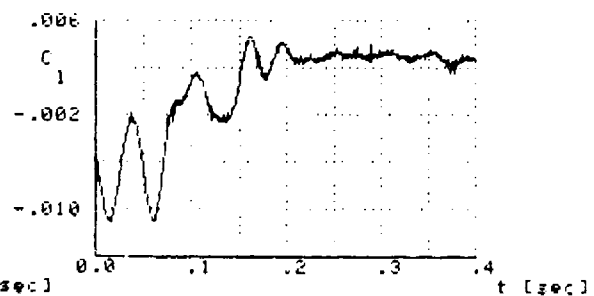
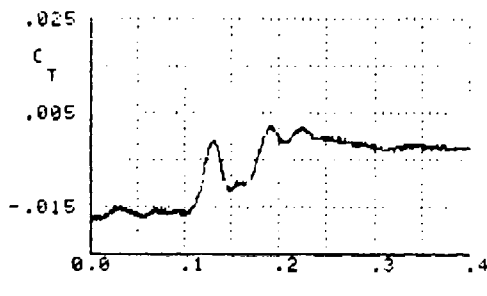
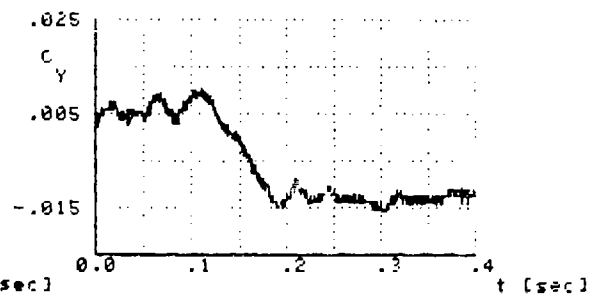
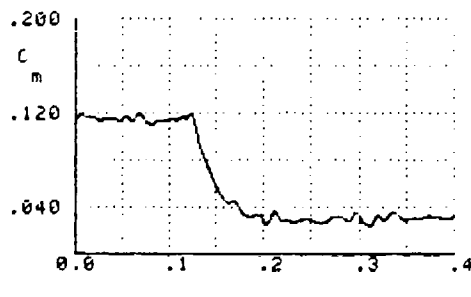
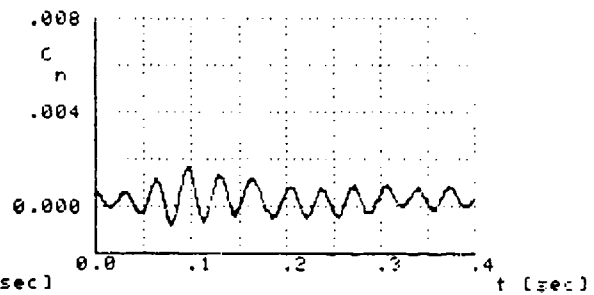
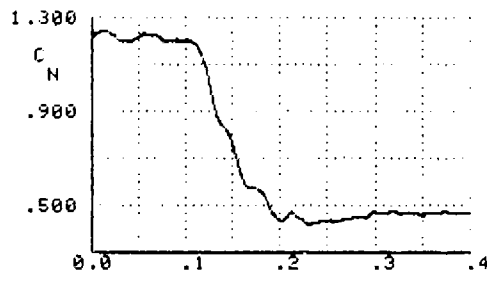
RUN = 3056  
 ALPHA<sub>a</sub> = 24 deg  
 DALPHA<sub>a</sub> = 16 deg  
 T/2 = 100 msec



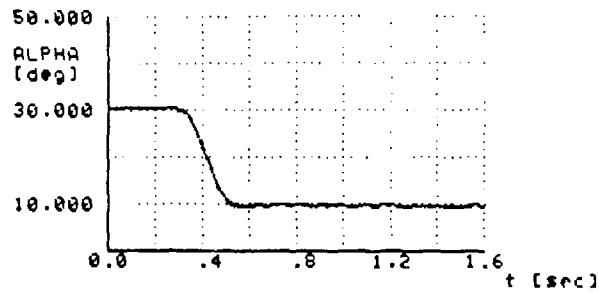


# HALF (1-COS) INPUT NOSE DOWN

RUN = 3057  
 ALPHA<sub>0</sub> = 24 deg  
 ΔALPHA<sub>0</sub> = 16 deg  
 T/2 = 63 msec

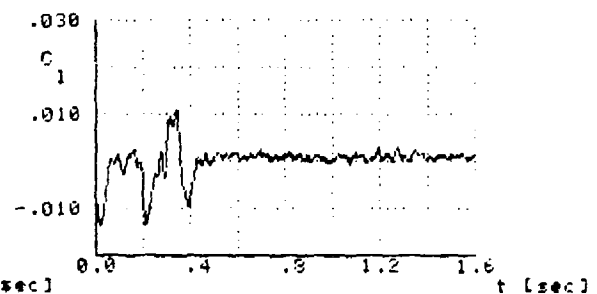
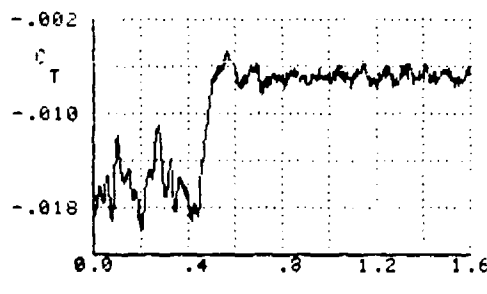
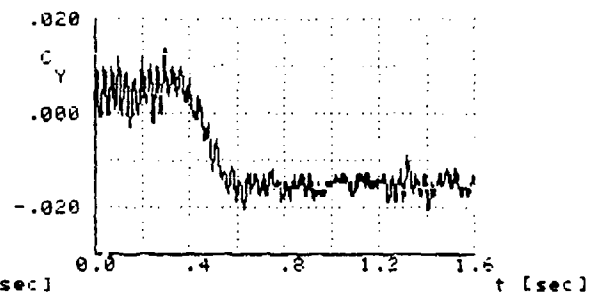
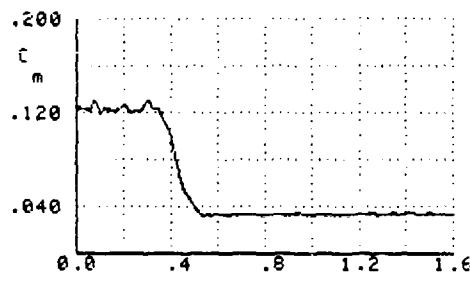
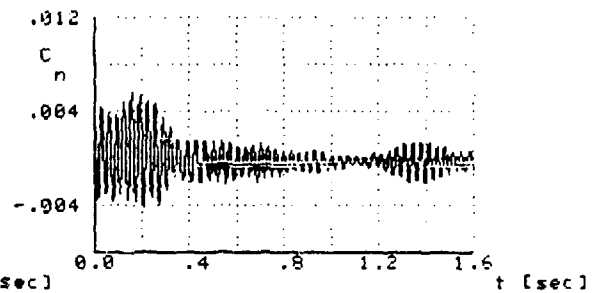
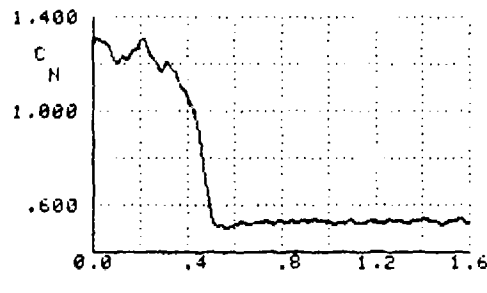


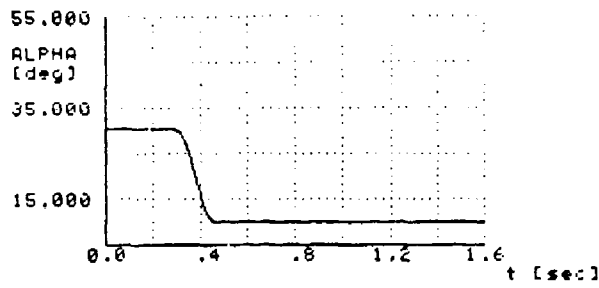




# HALF (1-COS) INPUT NOISE DOWN

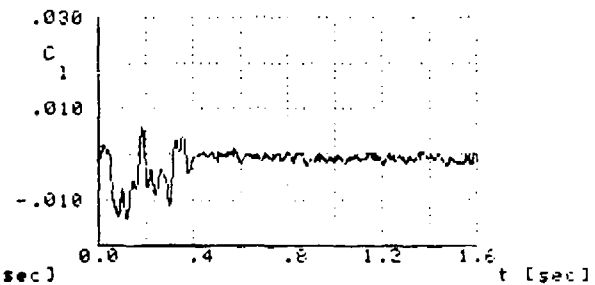
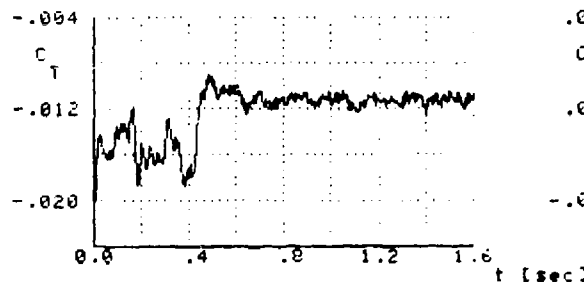
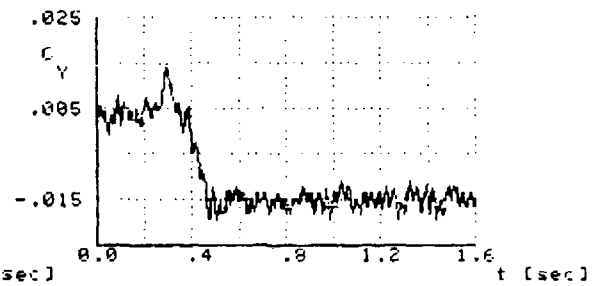
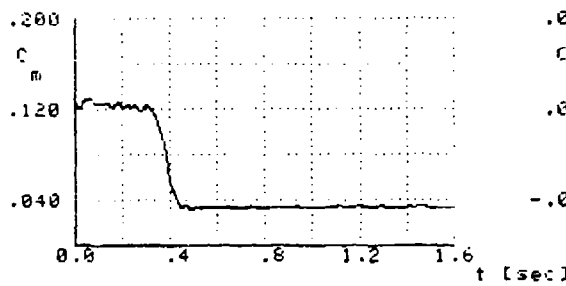
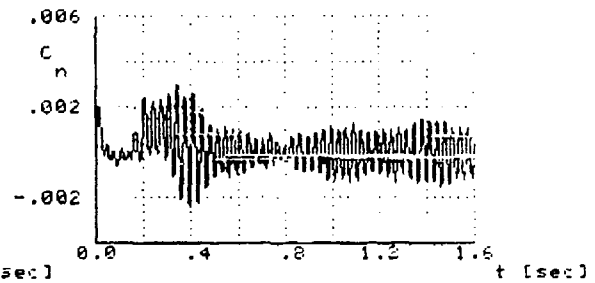
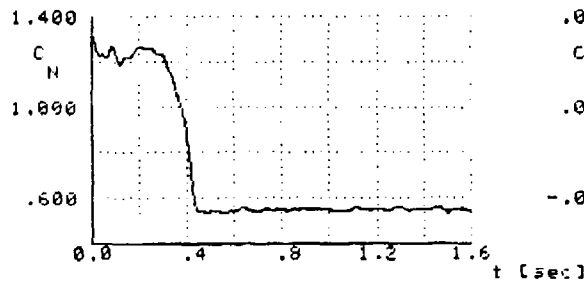
RUN = 3058  
 ALPHA<sub>a</sub> = 32 deg  
 DALPHA<sub>a</sub> = 24 deg  
 T/2 = 250 msec

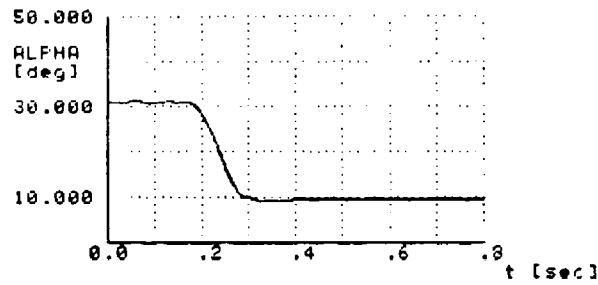




# HALF (1-COS) INPUT NOSE DOWN

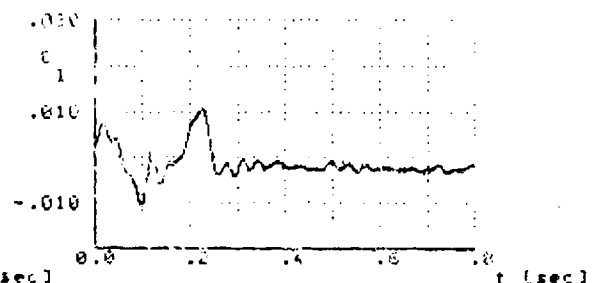
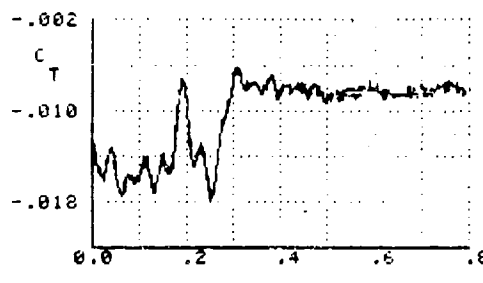
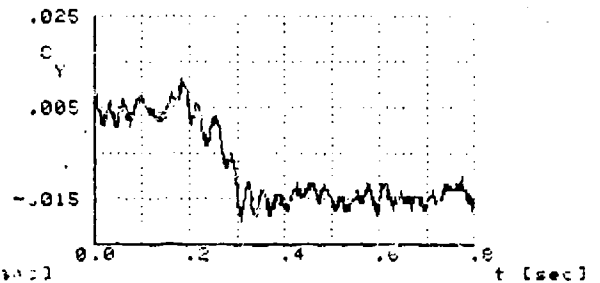
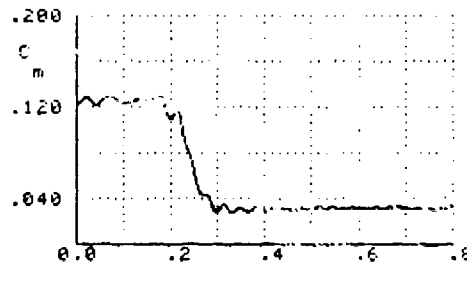
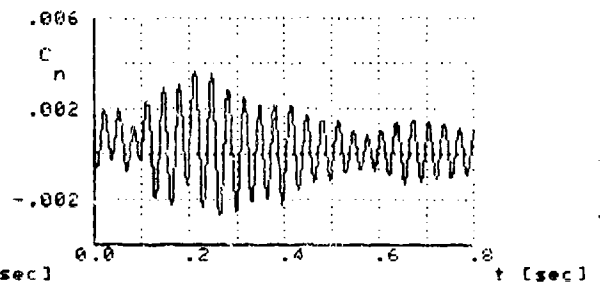
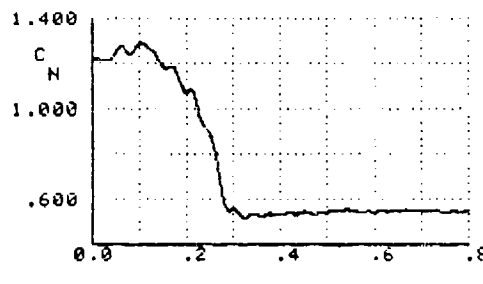
RUN = 3059  
ALPHA<sub>A</sub> = 32 deg  
DALPHA<sub>A</sub> = 24 deg  
T/2 = 167 msec

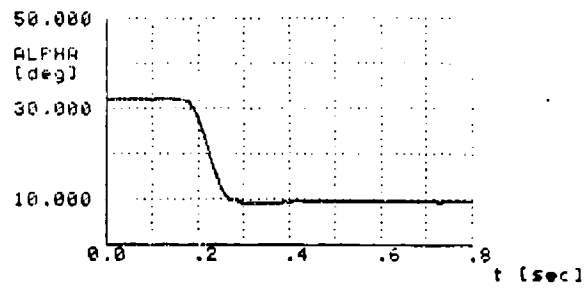




# HALF (1-COS) INPUT NOSE DOWN

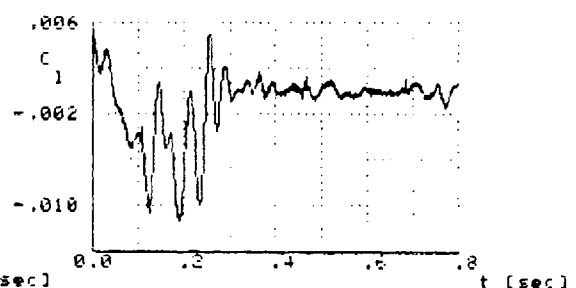
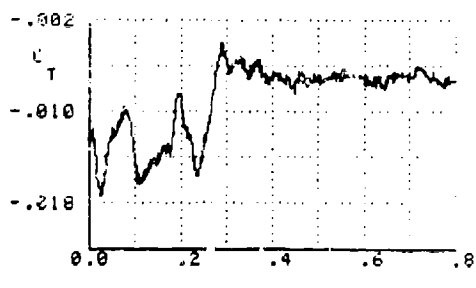
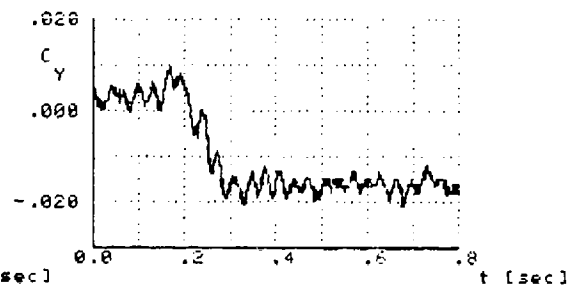
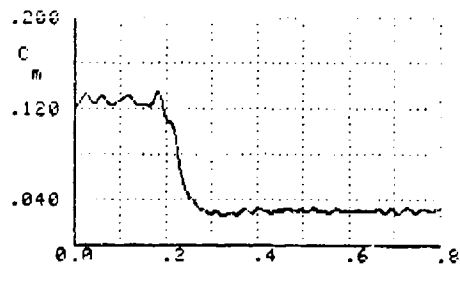
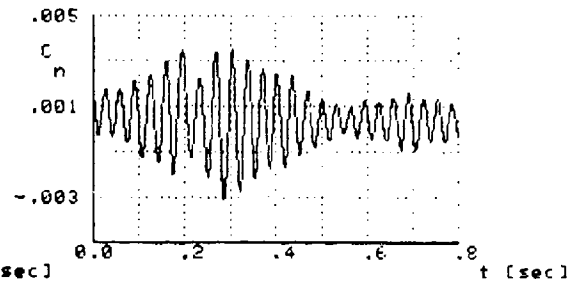
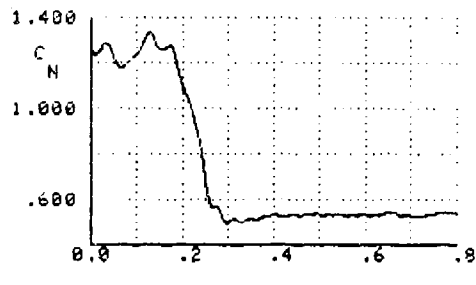
RUN = 3060  
ALPHA<sub>0</sub> = 32 deg  
DALPHA<sub>0</sub> = 24 deg  
T/2 = 125 msec

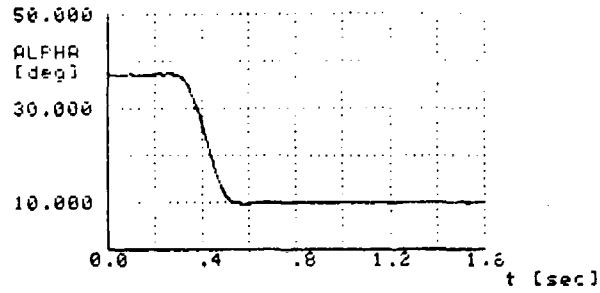




# HALF (1-COS) INPUT NOSE DOWN

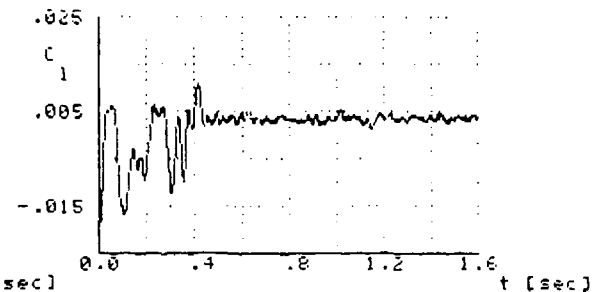
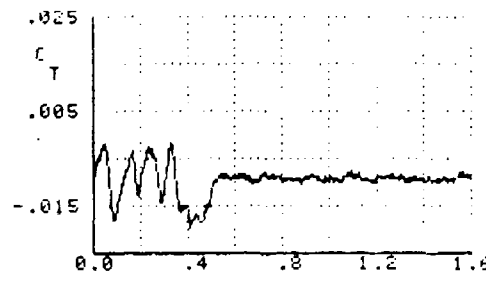
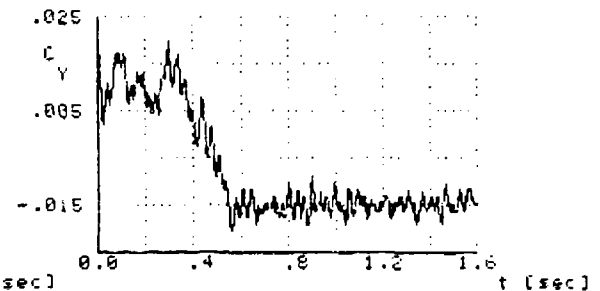
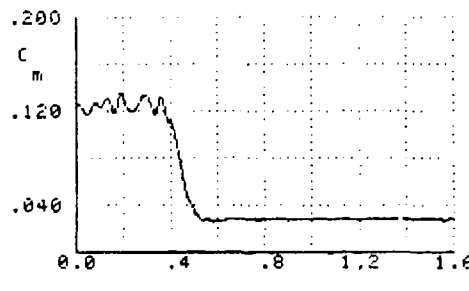
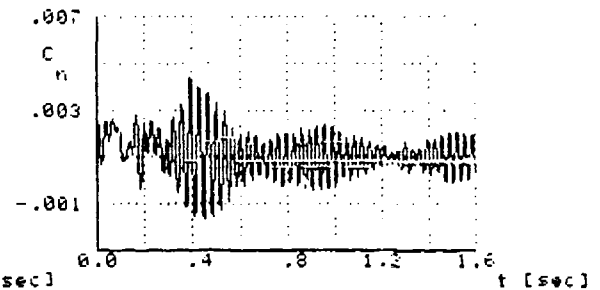
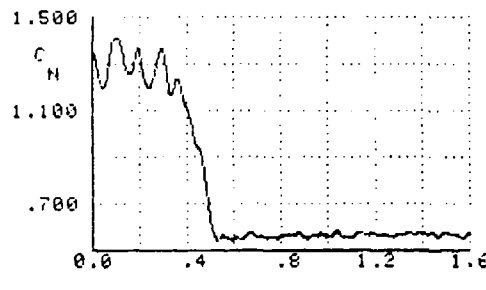
RUN = 3061  
ALPHA<sub>A</sub> = 32 deg  
DALPHA<sub>A</sub> = 24 deg  
T/2 = 100 msec

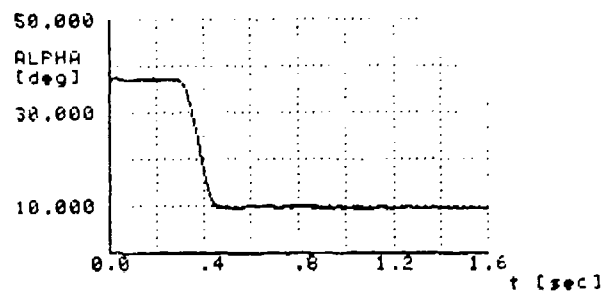




HALF (1-COS) INPUT  
NOSE DOWN

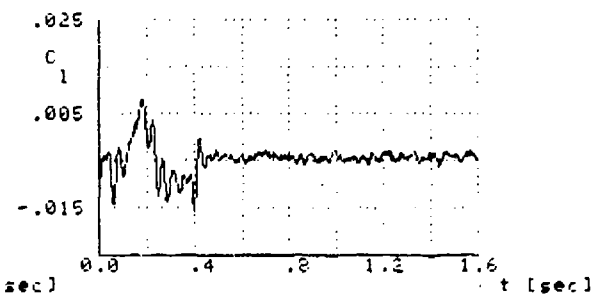
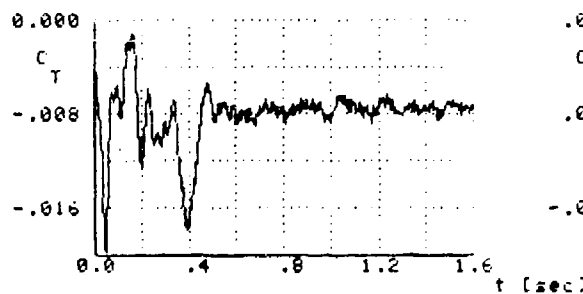
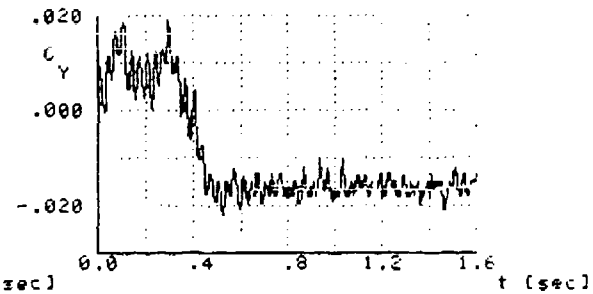
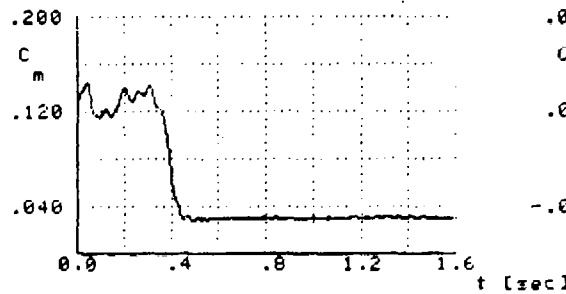
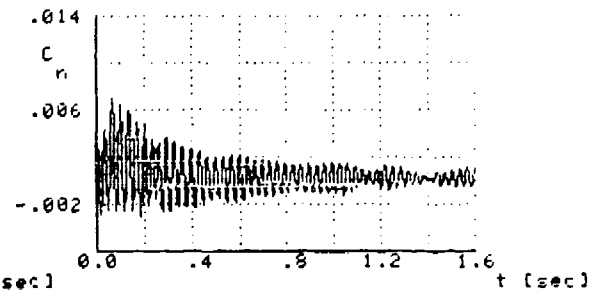
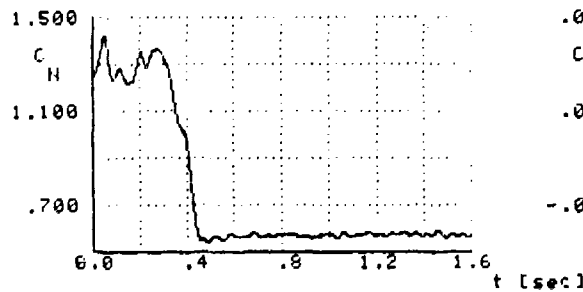
RUN = 3062  
ALPHA<sub>a</sub> = 40 deg  
DALPHA<sub>a</sub> = 32 deg  
T/2 = 250 msec

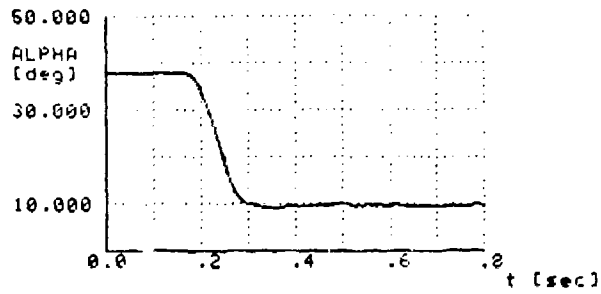




# HALF (1-COS) INPUT NOSE DOWN

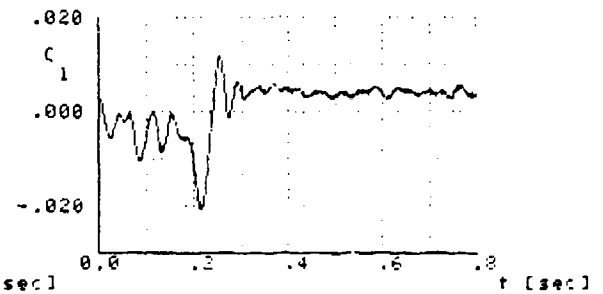
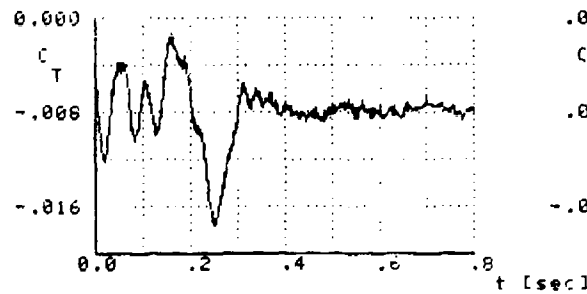
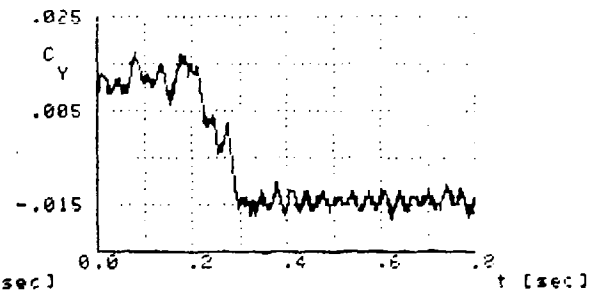
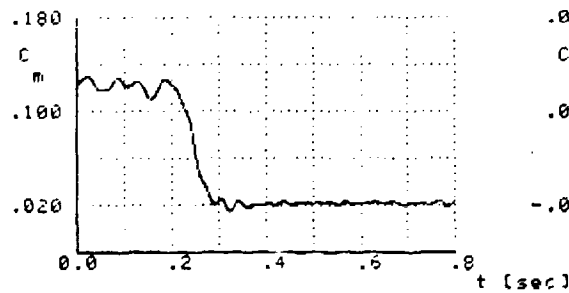
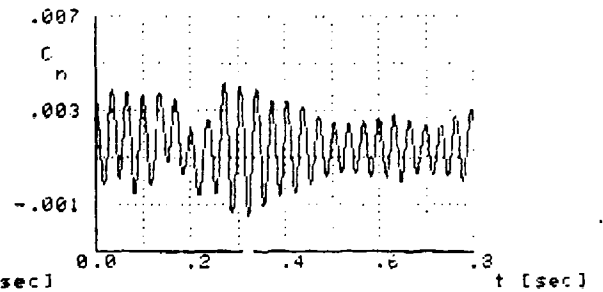
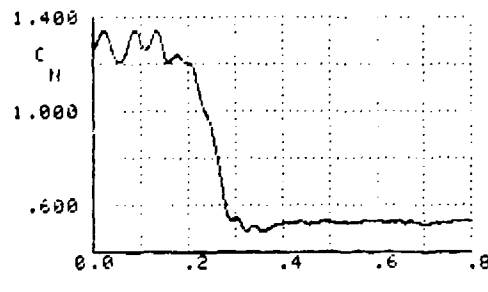
RUN = 3063  
 $\text{ALPHA}_0 = 40$  deg  
 $\text{DALPHA}_0 = 32$  deg  
 $T/2 = 167$  msec

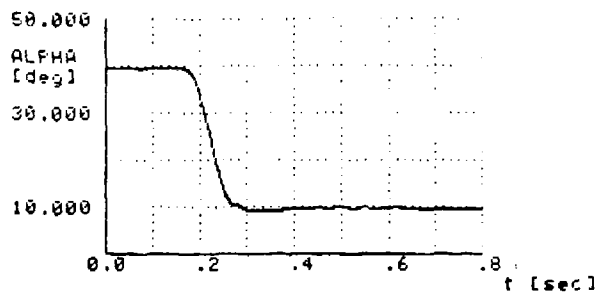




# HALF (1-COS) INPUT NOSE DOWN

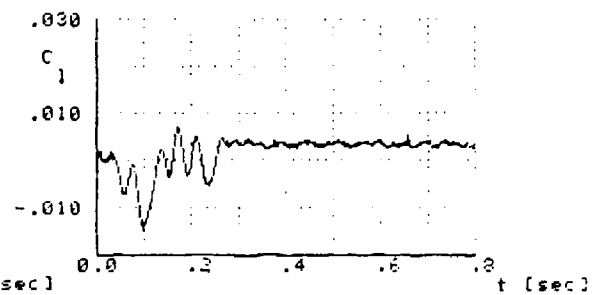
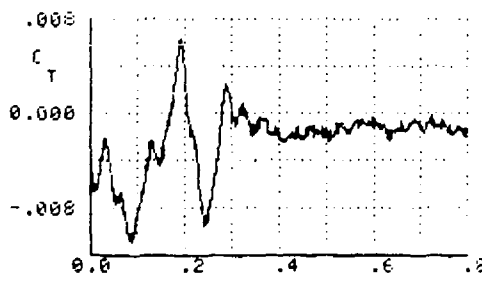
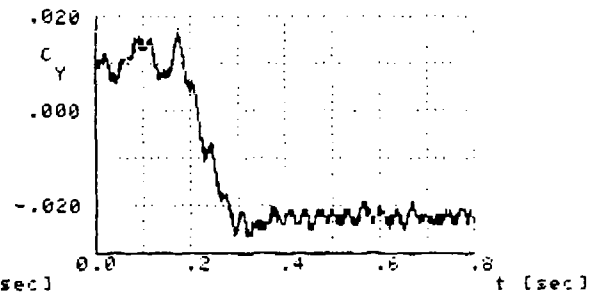
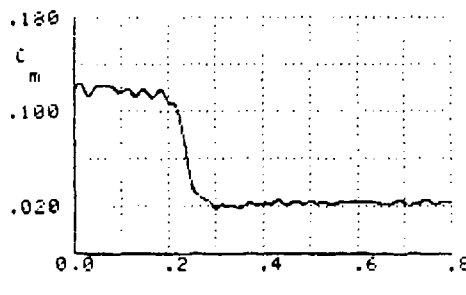
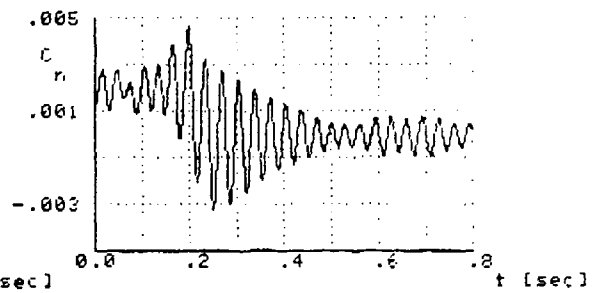
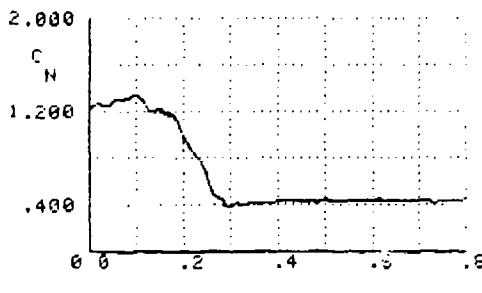
RUN = 3064  
 ALPHA<sub>a</sub> = 40 deg  
 DRALPHA<sub>a</sub> = 32 deg  
 T/2 = 125 msec



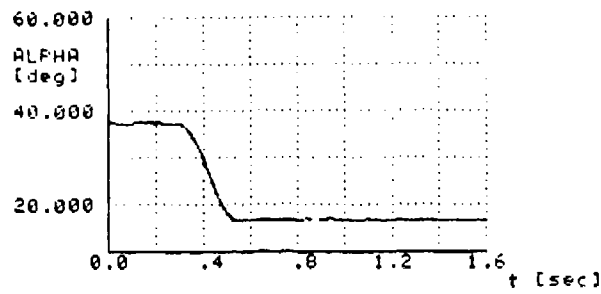


# HALF (1-COS) INPUT HOSE DOWN

RUN = 3065  
 $\alpha_a$  = 40 deg  
 $\Delta\alpha_a$  = 32 deg  
 $T/2$  = 100 msec

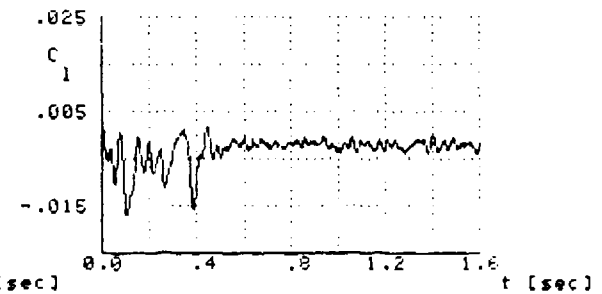
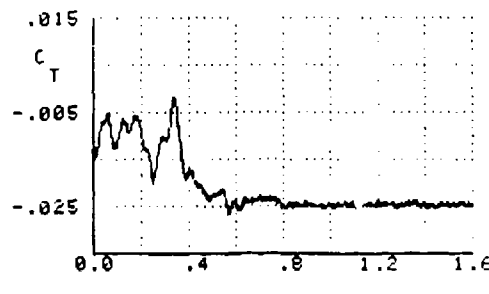
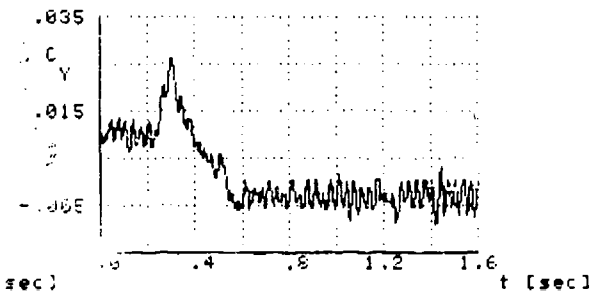
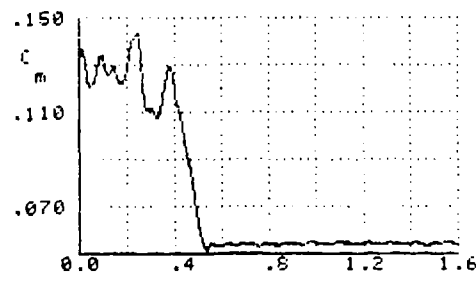
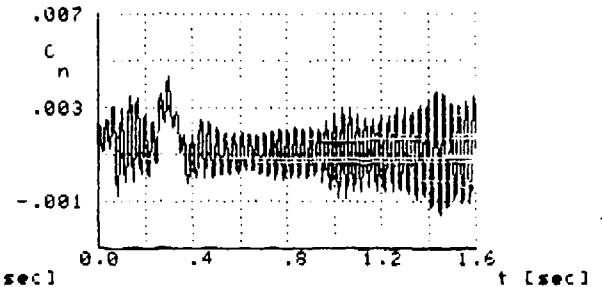
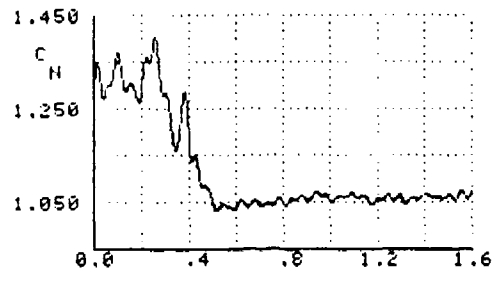


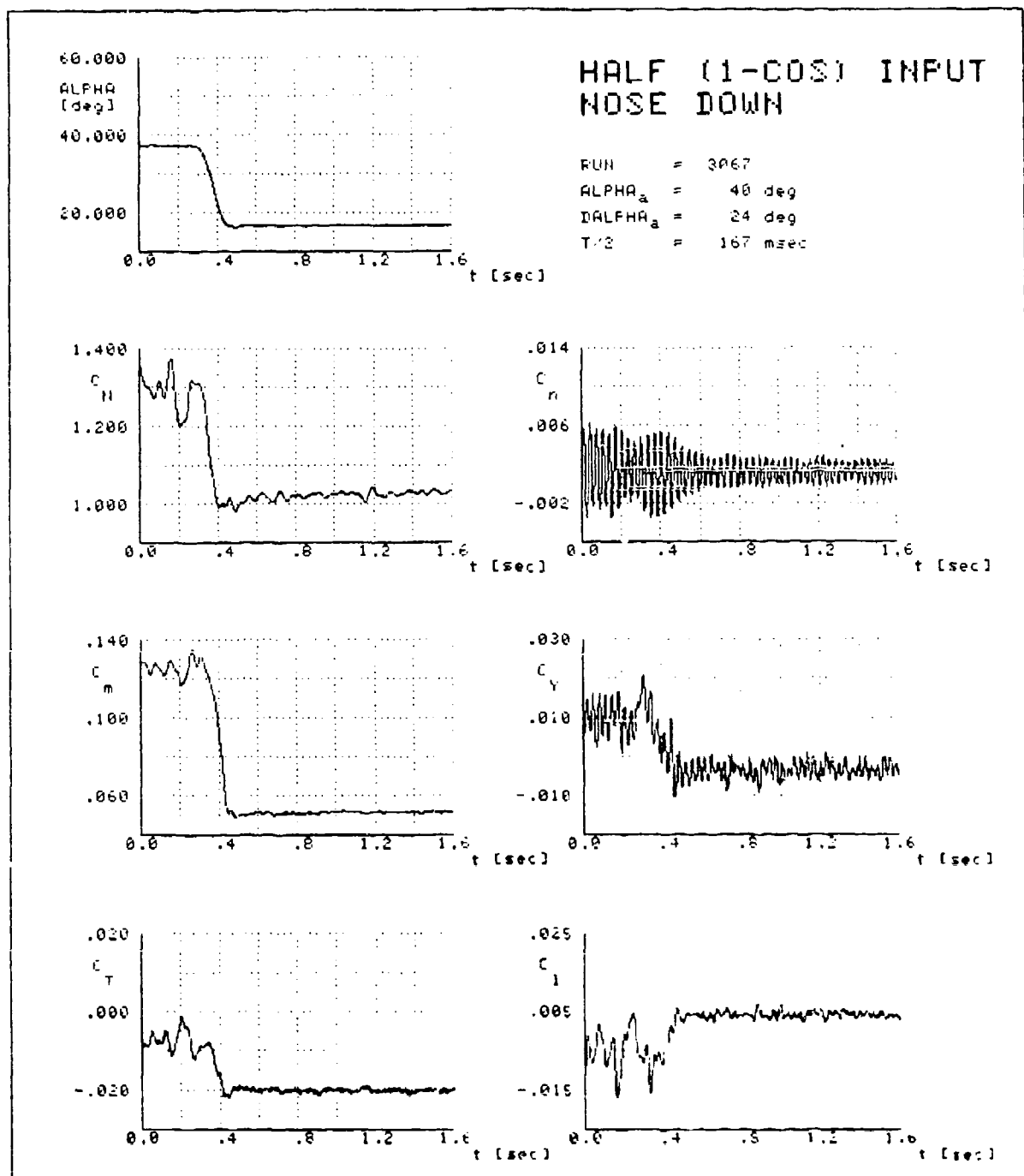


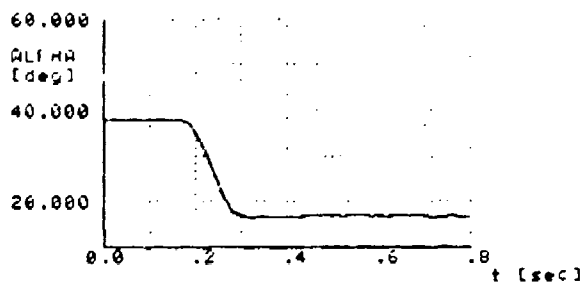


# HALF (1-COS) INPUT NOSE DOWN

RUN = 3066  
ALPHA<sub>a</sub> = 40 deg  
DALPHA<sub>a</sub> = 24 deg  
T/2 = 250 msec

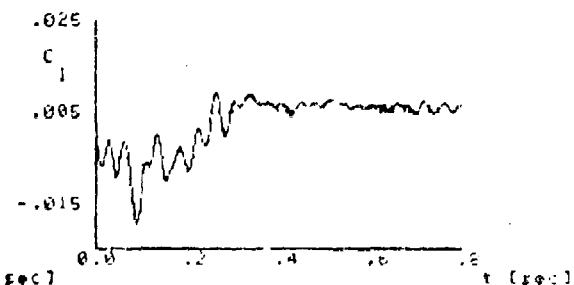
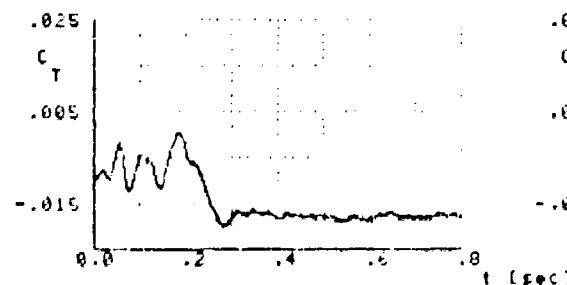
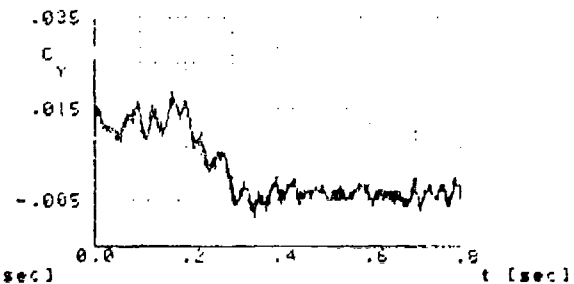
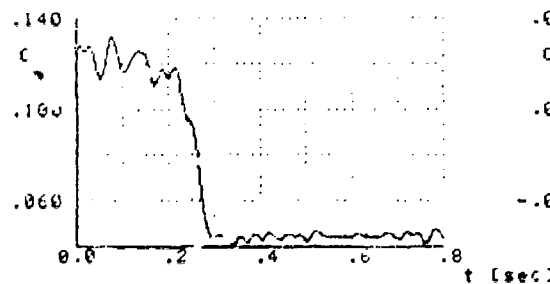
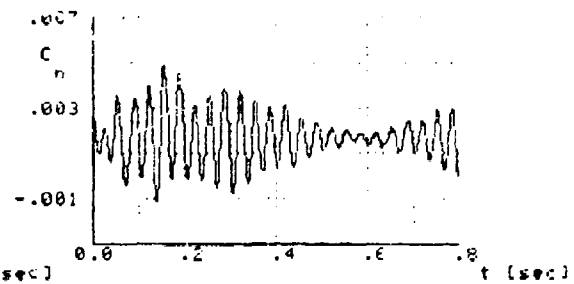
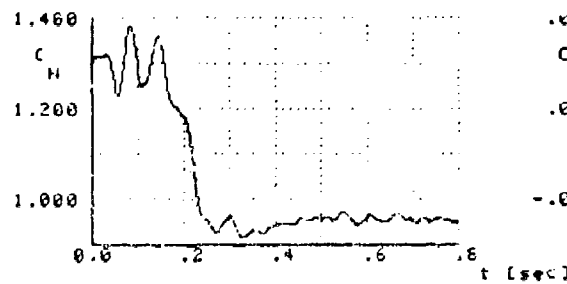


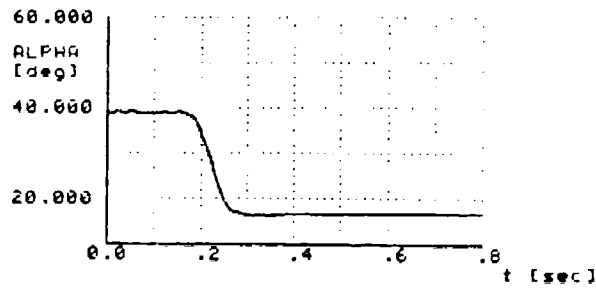




# HALF (1-COS) INPUT NOSE DOWN

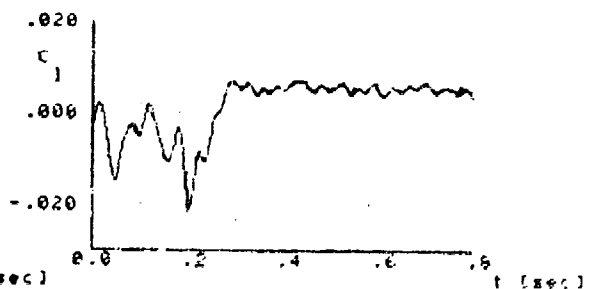
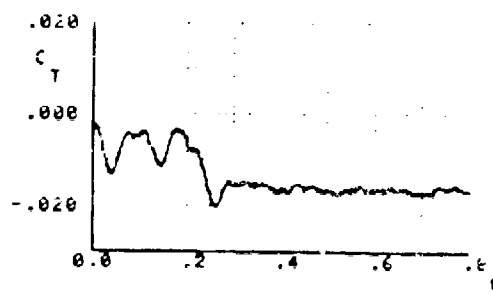
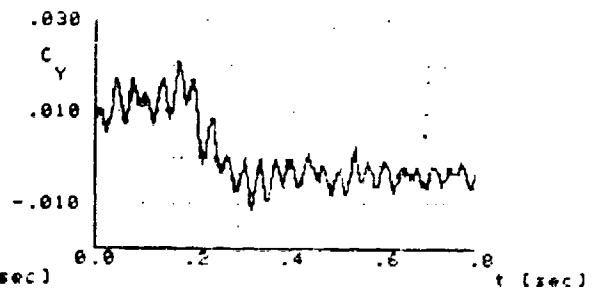
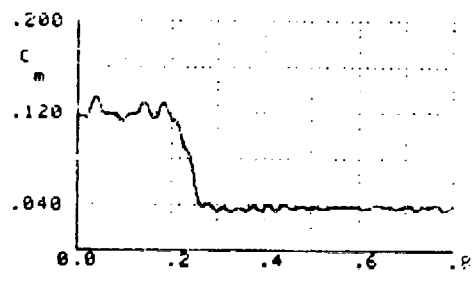
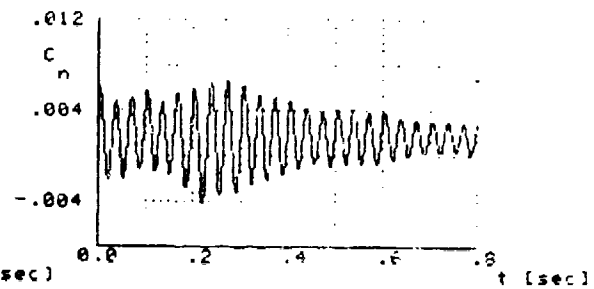
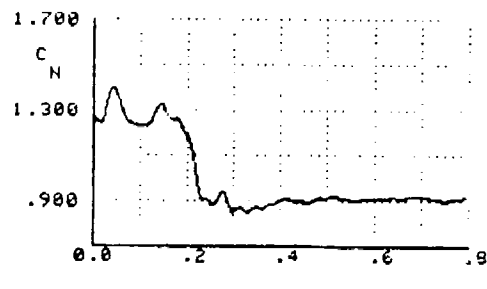
RUN = 3068  
 $\alpha_A$  = 40 deg  
 $\alpha_{LP}$  = 24 deg  
 $T/2$  = 125 msec

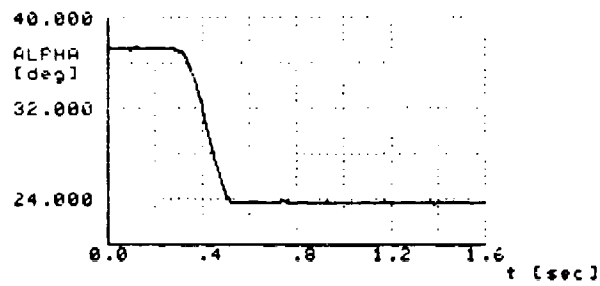




# HALF (1-COS) INPUT NOSE DOWN

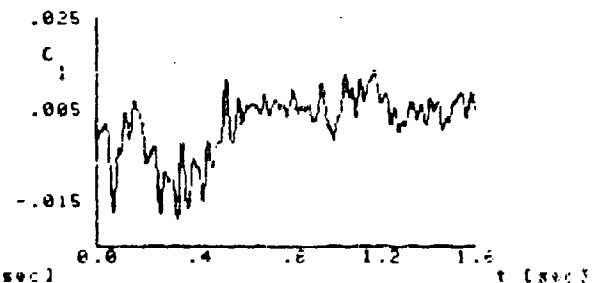
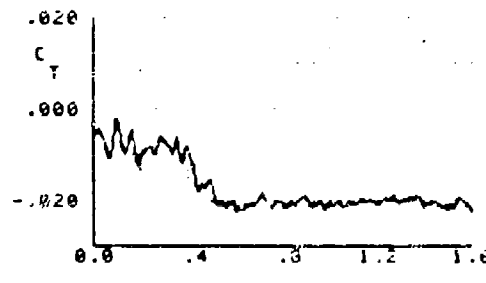
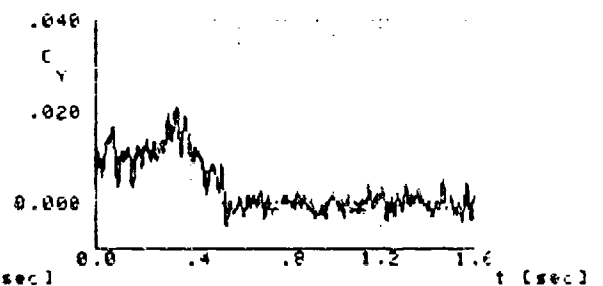
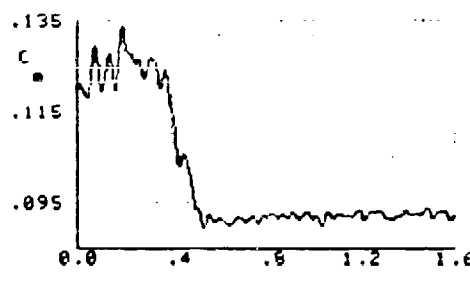
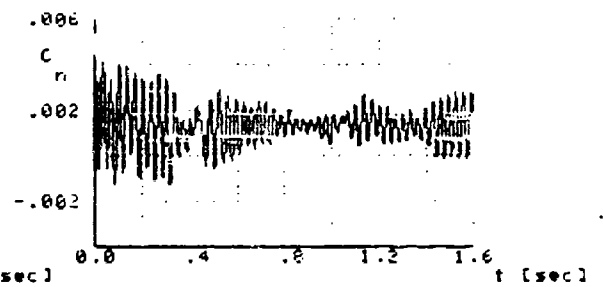
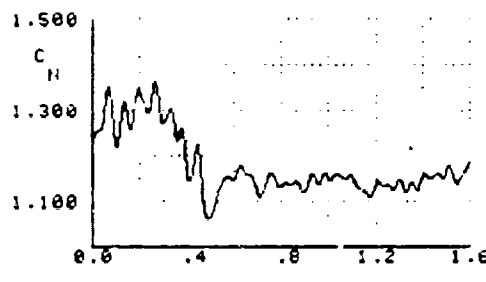
RUN = 3009  
 $\alpha_a = 40$  deg  
 $\Delta\alpha_a = 24$  deg  
 $T/2 = 100$  msec

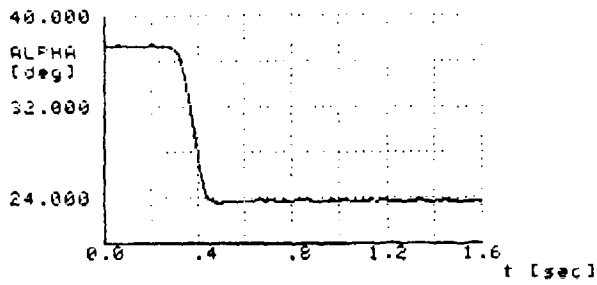




# HALF (1-COS) INPUT NOSE DOWN

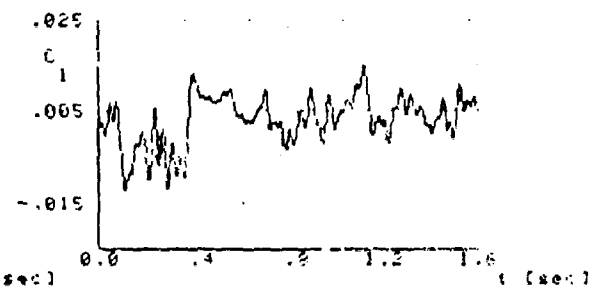
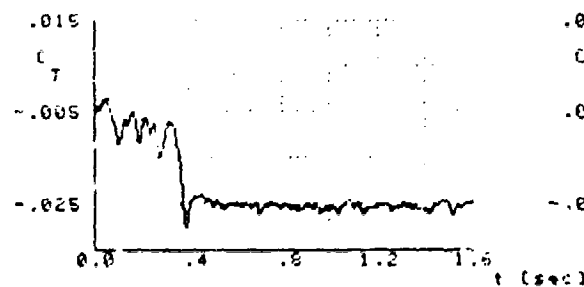
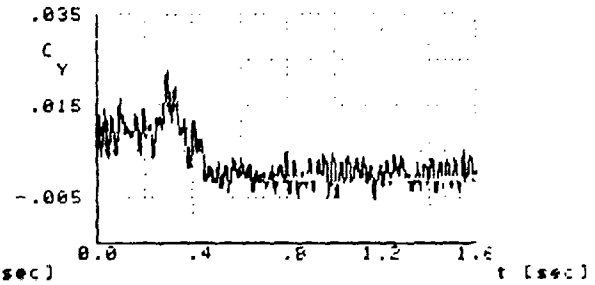
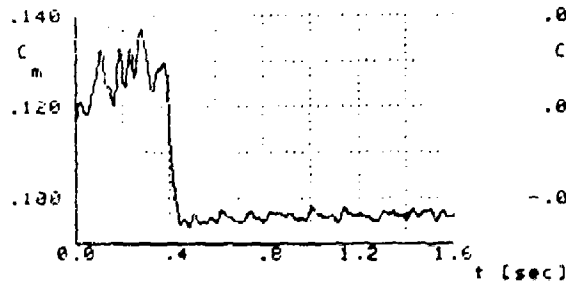
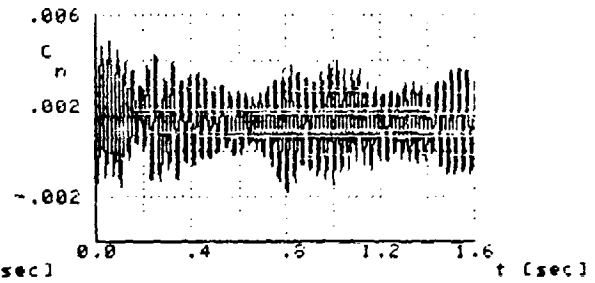
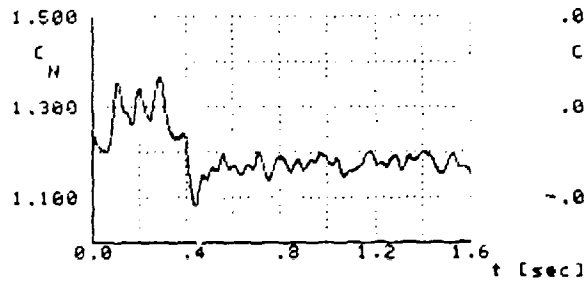
RUN = 3070  
ALPHA<sub>0</sub> = 40 deg  
ΔALPHA = 16 deg  
T/2 = 250 msec

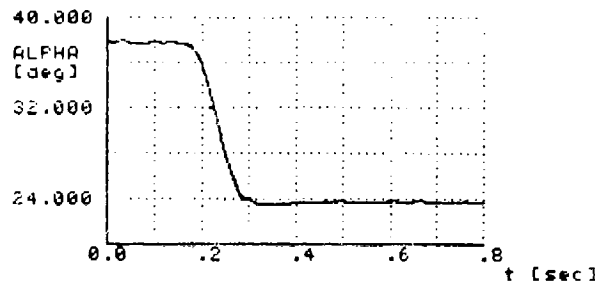




# HALF (1-COS) INPUT NOSE DOWN

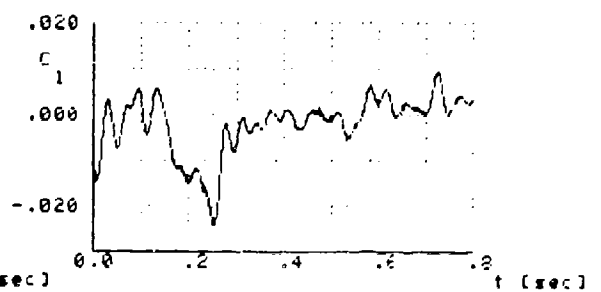
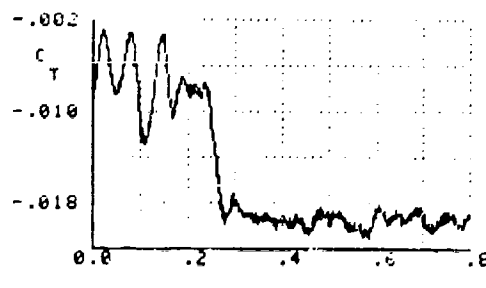
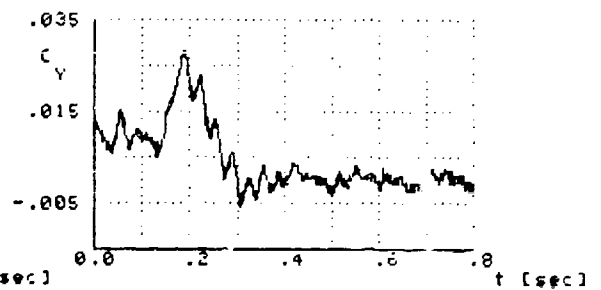
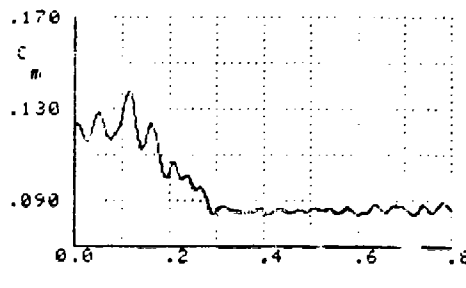
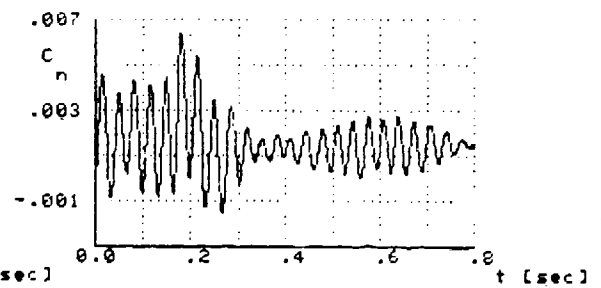
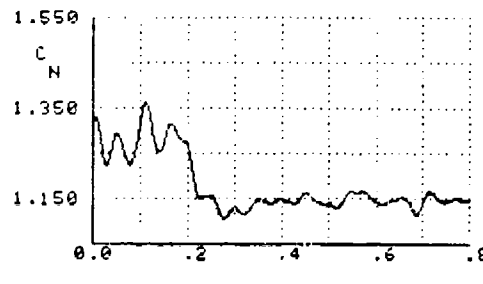
RUN = 3071  
ALPHA<sub>0</sub> = 40 deg  
DALPHA<sub>0</sub> = 16 deg  
T/2 = 167 msec

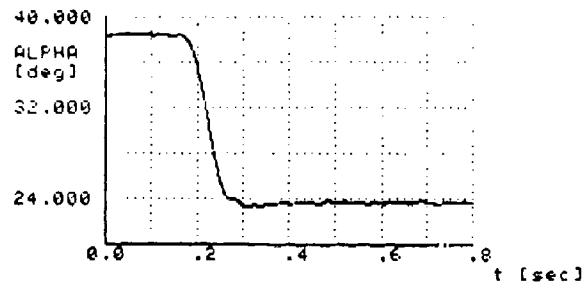




# HALF (1-COS) INPUT NOSE DOWN

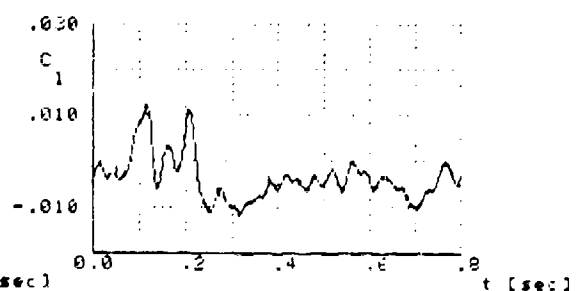
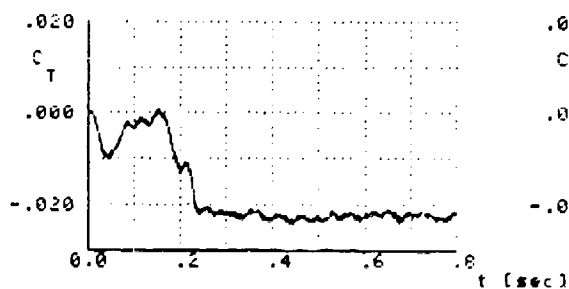
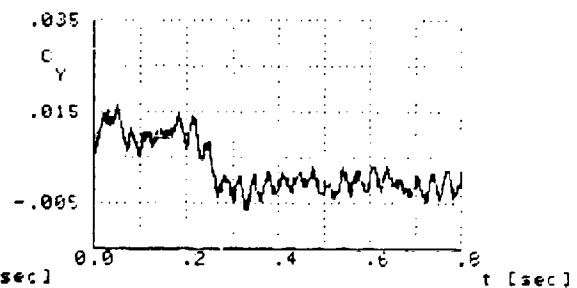
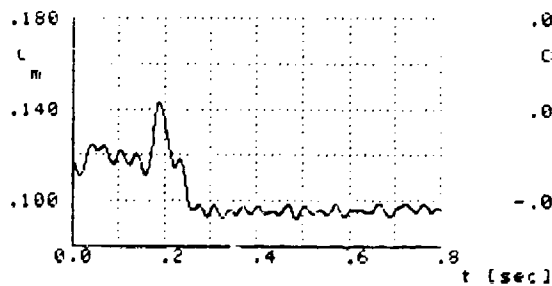
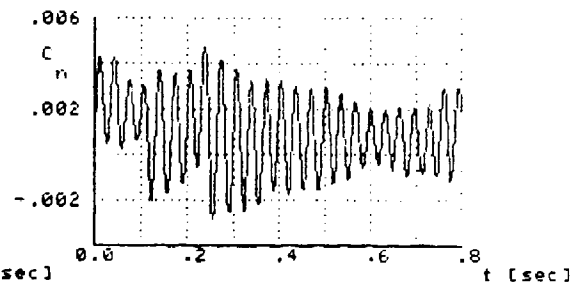
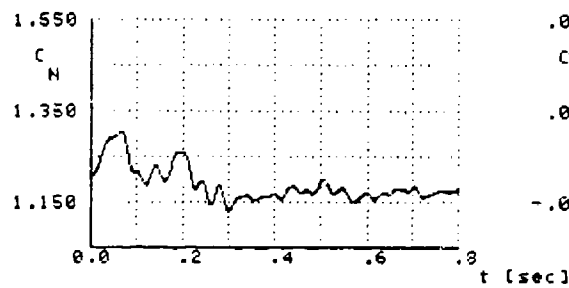
RUN = 3072  
ALPHA<sub>a</sub> = 40 deg  
DALPHA<sub>a</sub> = 16 deg  
T/2 = 125 msec



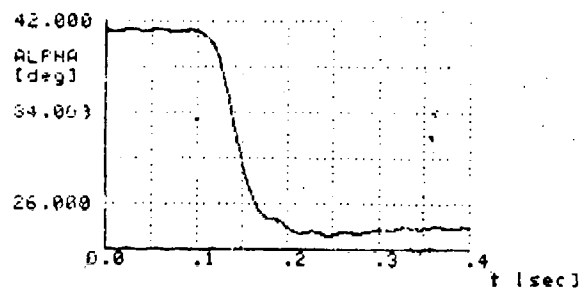


# HALF (1-COS) INPUT NOSE DOWN

RUN = 3073  
ALPHA<sub>0</sub> = 40 deg  
ΔALPHA<sub>0</sub> = 16 deg  
T/2 = 100 msec

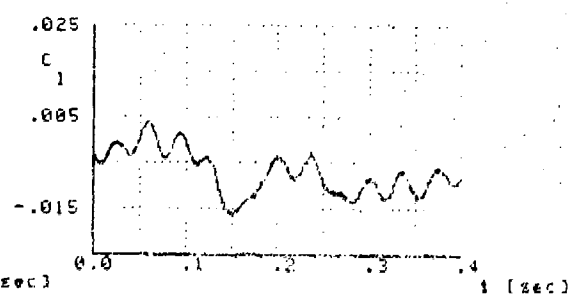
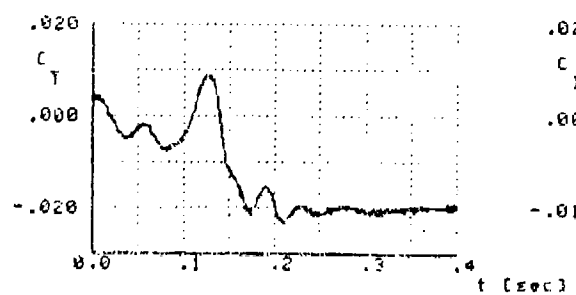
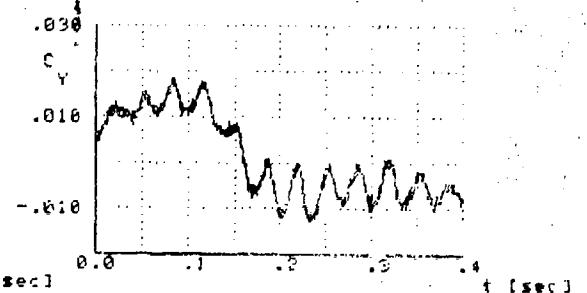
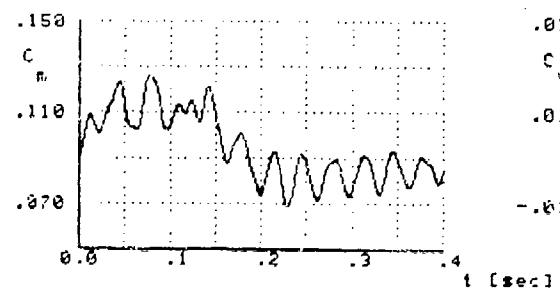
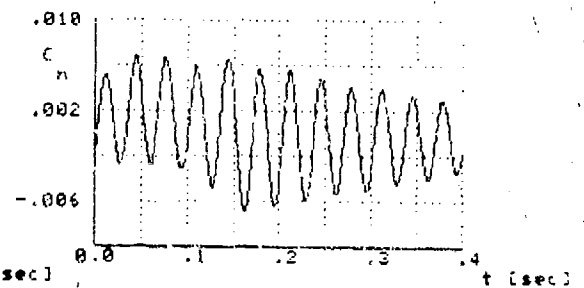
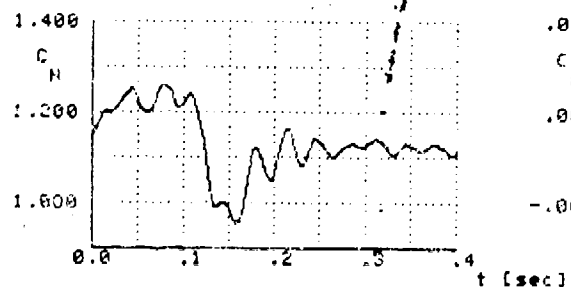


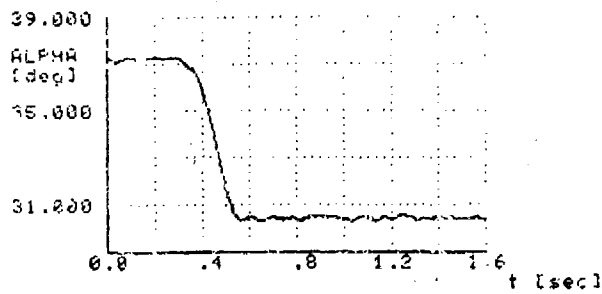




# HALF (1-COS) INPUT NOSE DOWN

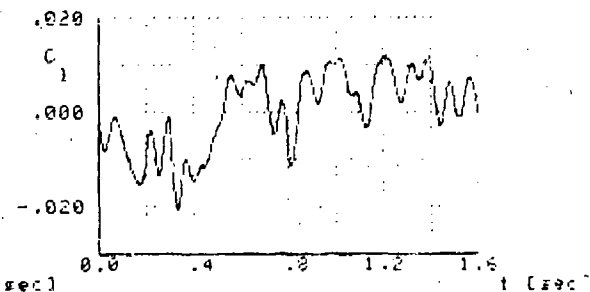
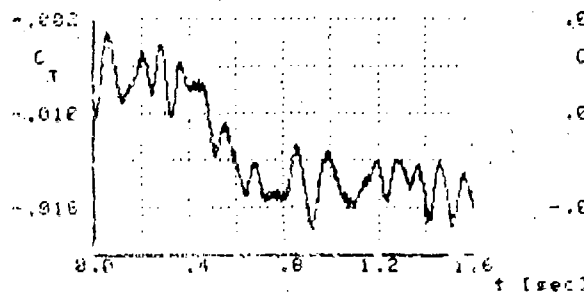
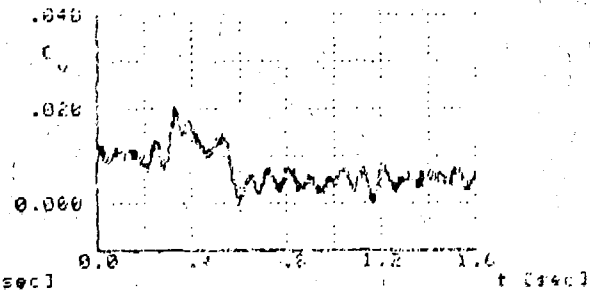
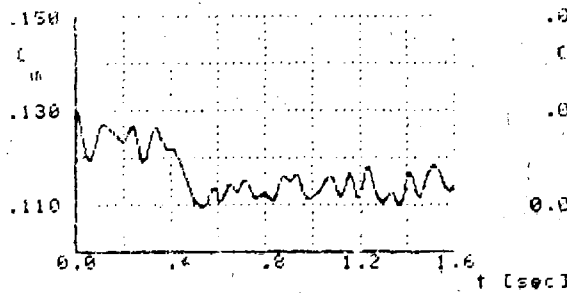
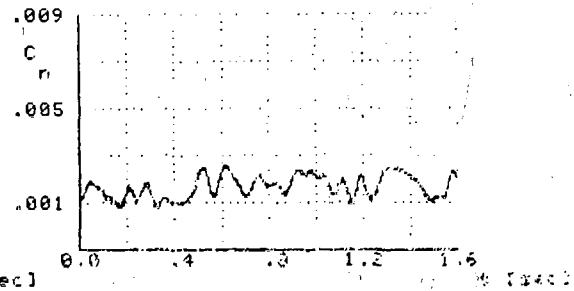
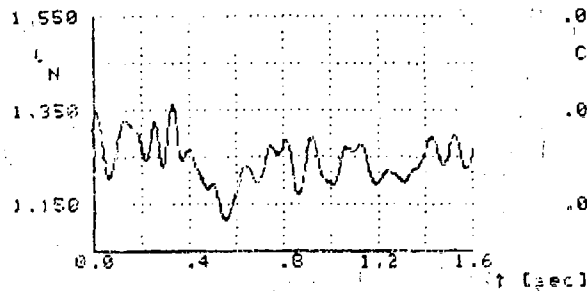
RUN = 3874  
ALPHA<sub>0</sub> = 40 deg  
DRALPHA<sub>0</sub> = 16 deg  
T/2 = 63 msec

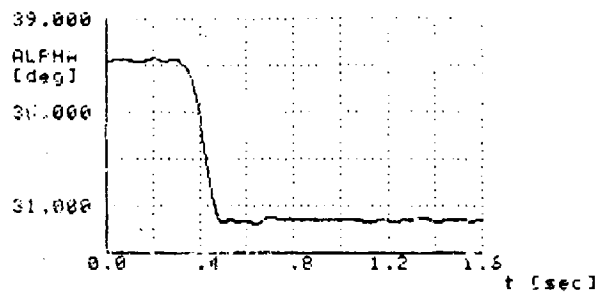




# HALF (1-COS) INPUT NOSE DOWN

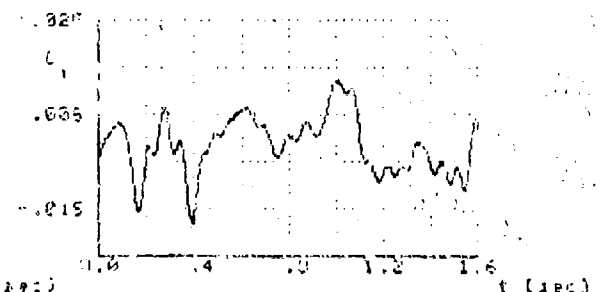
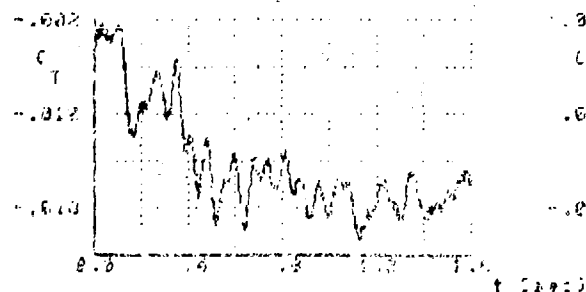
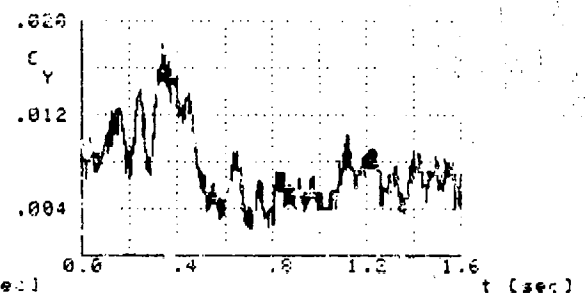
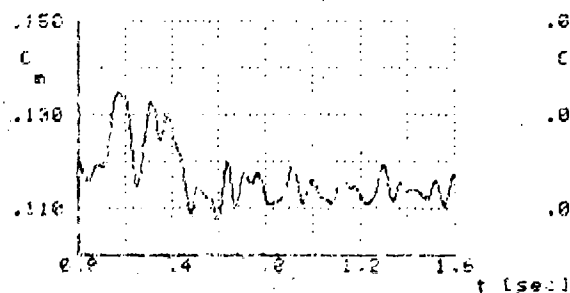
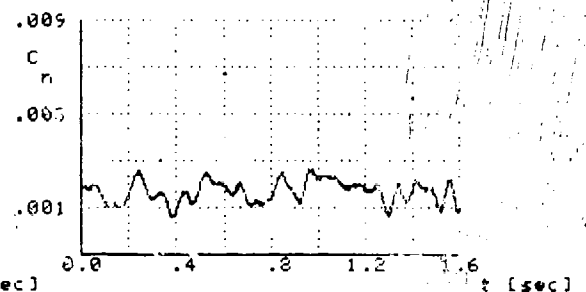
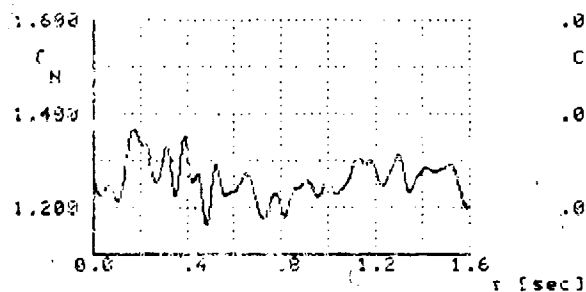
RUN = 3075  
 ALPHA<sub>1</sub> = 40 deg  
 DALPHA<sub>a</sub> = 8 deg  
 T/2 = 250 msec

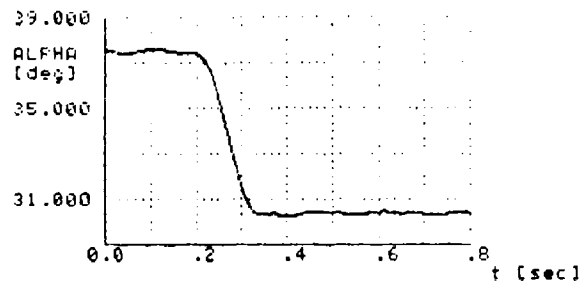




# HALF (1-COS) INPUT NOSE DOWN

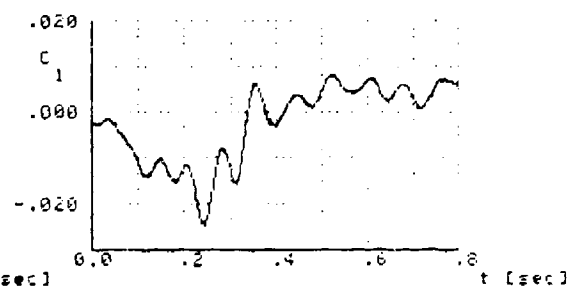
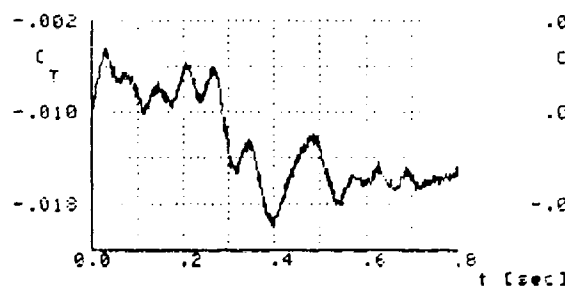
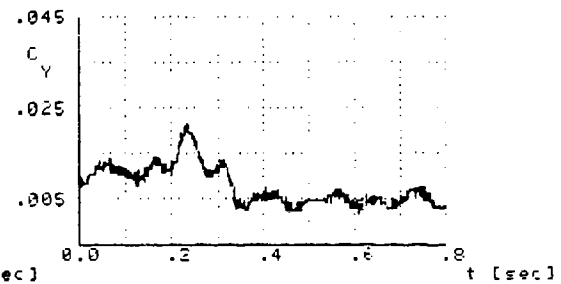
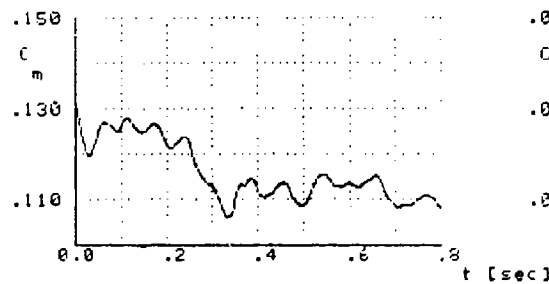
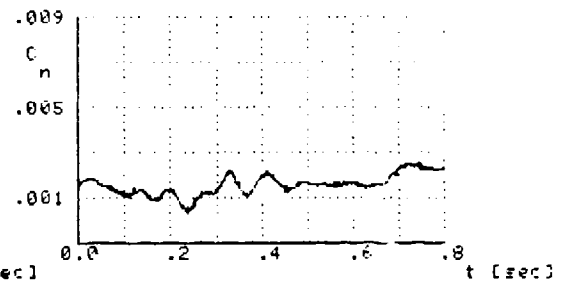
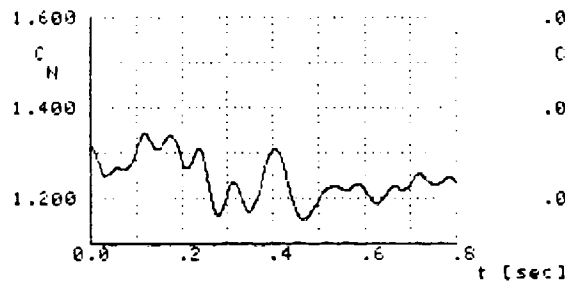
RUN = 3978  
ALPHA<sub>0</sub> = 40 deg  
DALPHA<sub>0</sub> = 8 deg  
T/2 = 167 msec

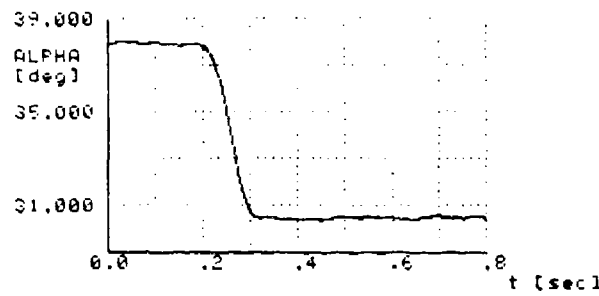




# HALF (1-COS) INPUT NOSE DOWN

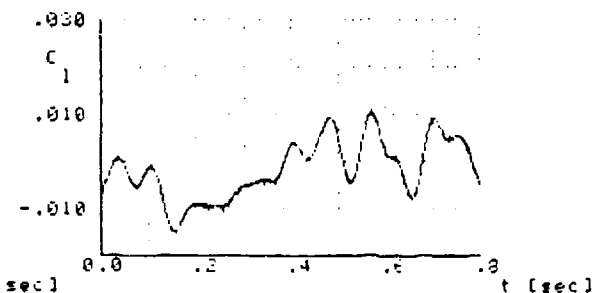
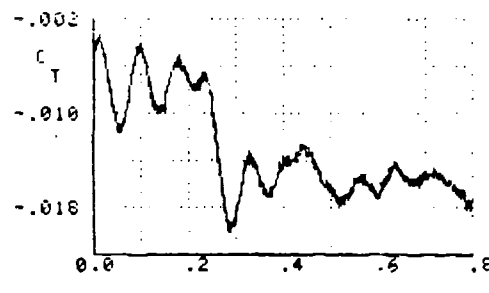
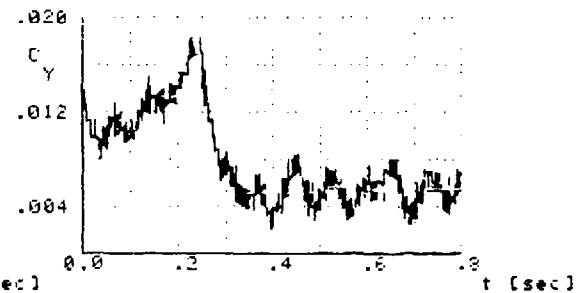
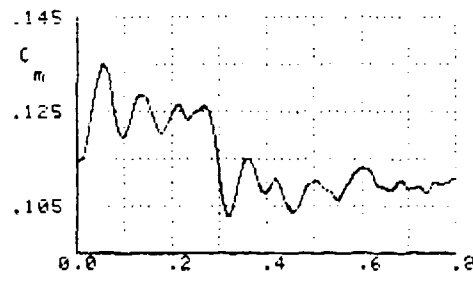
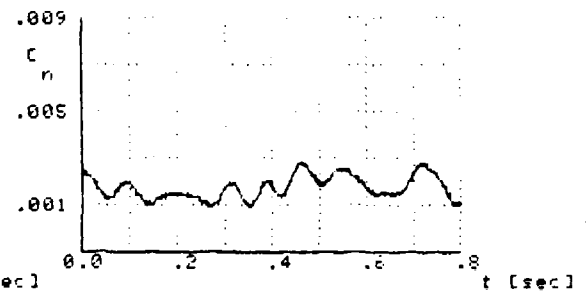
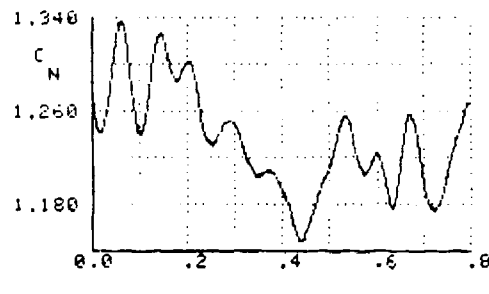
RUN = 3077  
 ALPHA<sub>a</sub> = 40 deg  
 DALPHA<sub>a</sub> = 0 deg  
 T/2 = 125 msec

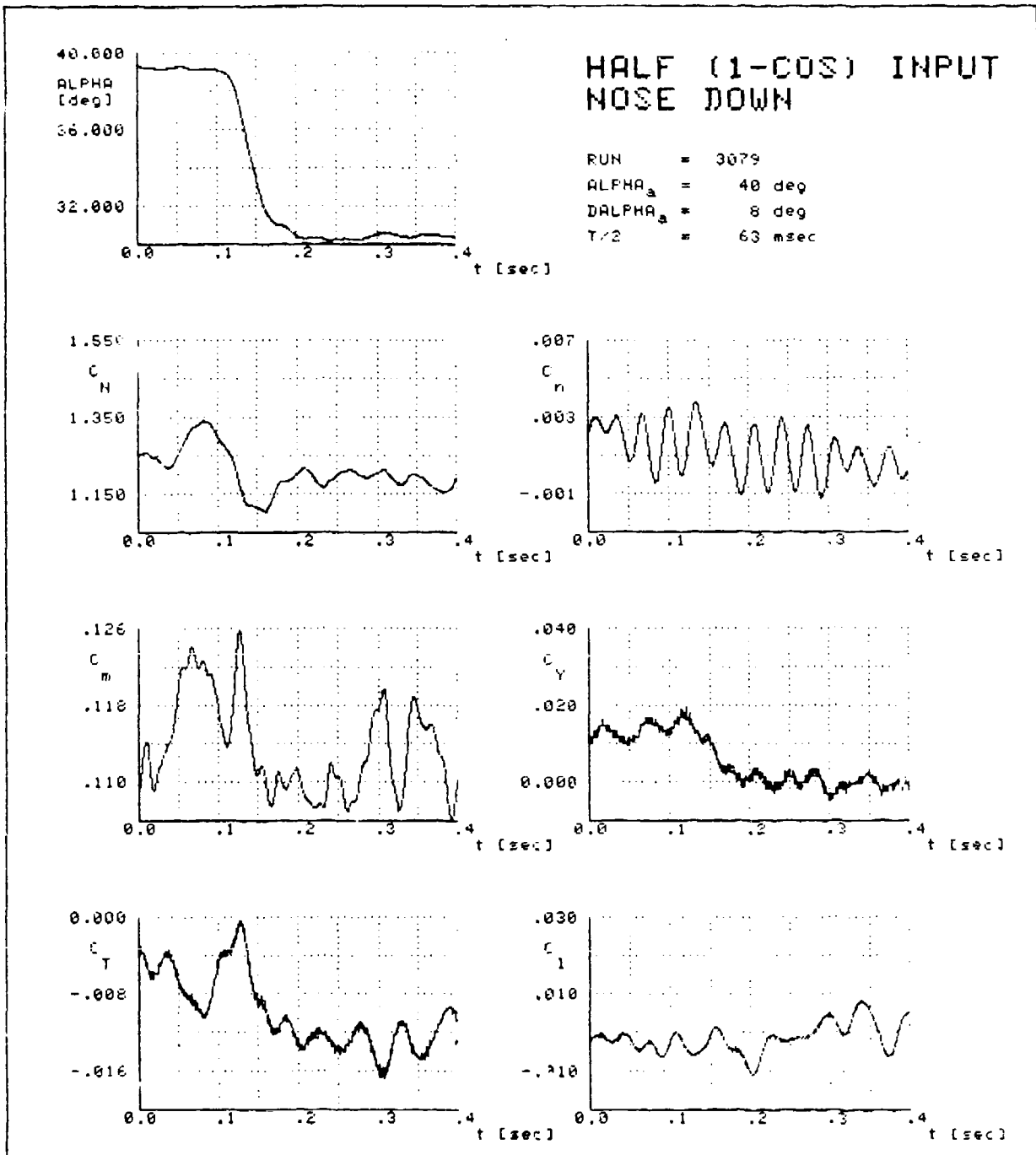


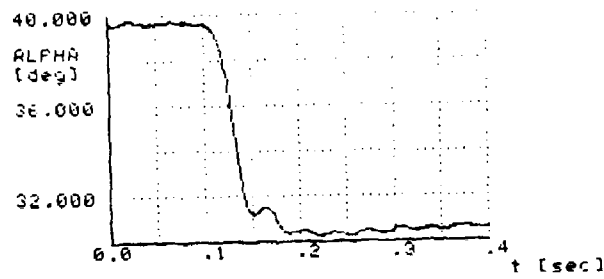


# HALF (1-COS) INPUT NOSE DOWN

RUN = 3078  
 $\alpha_a = 40$  deg  
 $\Delta\alpha_a = 8$  deg  
 $T/2 = 100$  msec

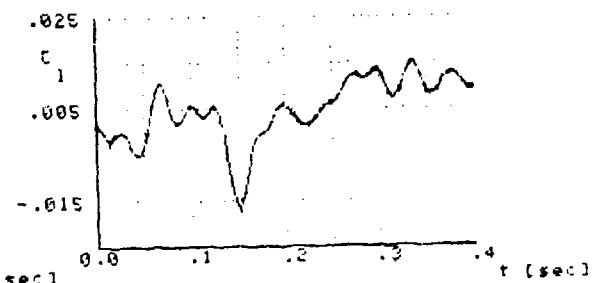
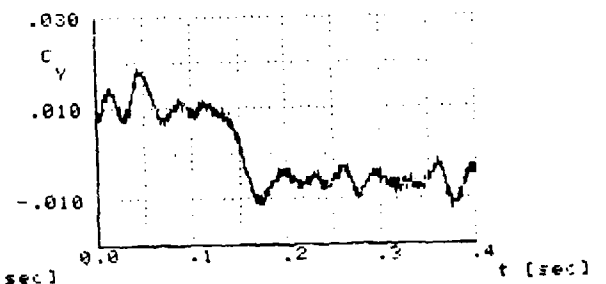
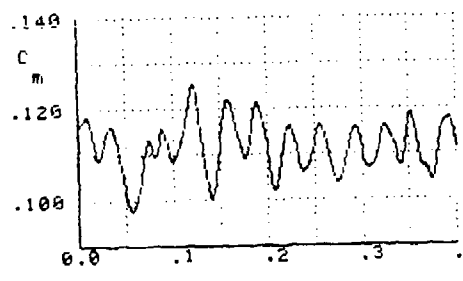
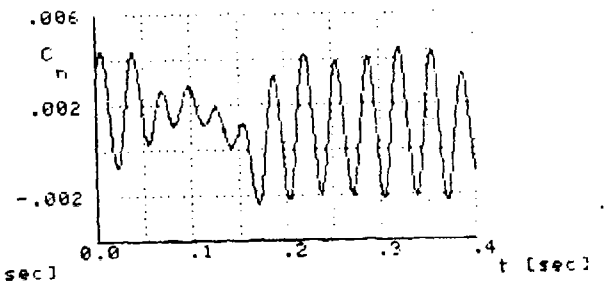
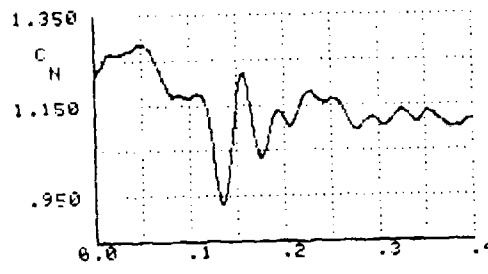




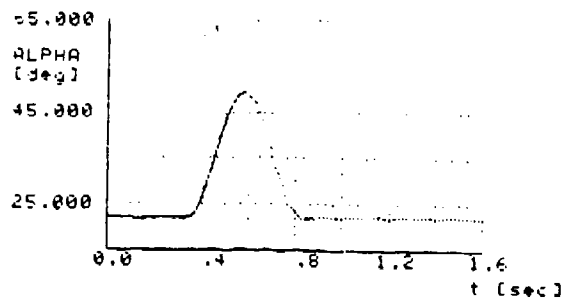


# HALF (1-COS) INPUT NOSE DOWN

RUN = 3080  
ALPHA<sub>a</sub> = 40 deg  
DALPHA<sub>a</sub> = 8 deg  
T/2 = 42 msec

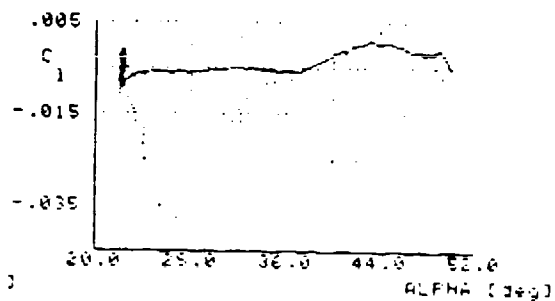
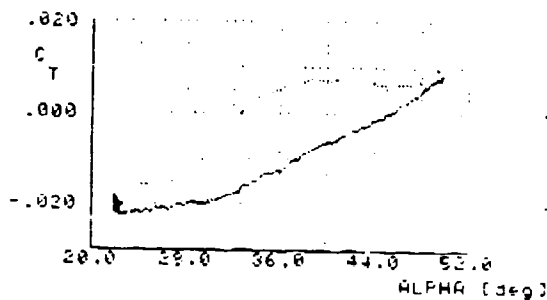
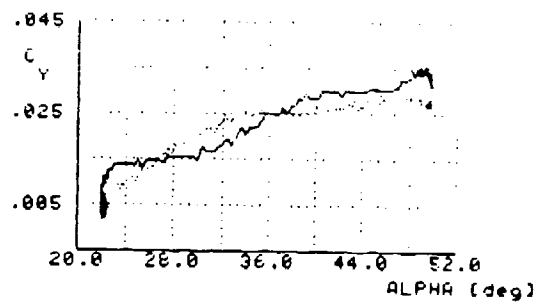
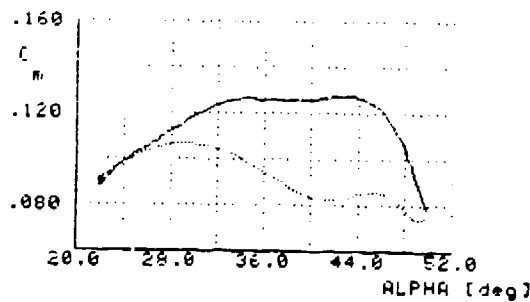
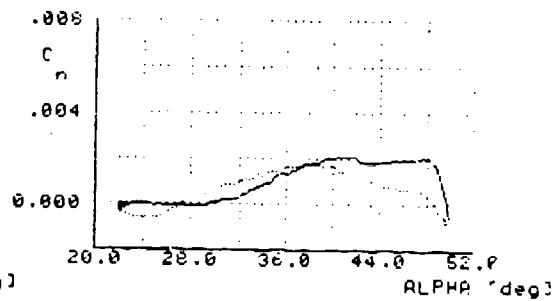
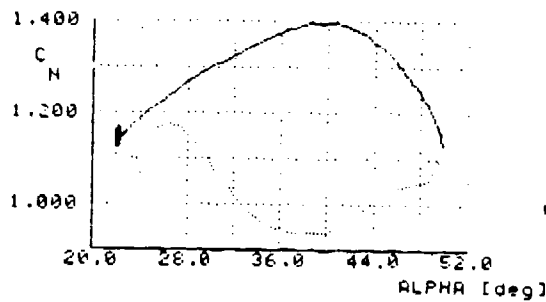


C1



# (1-COS) INPUT

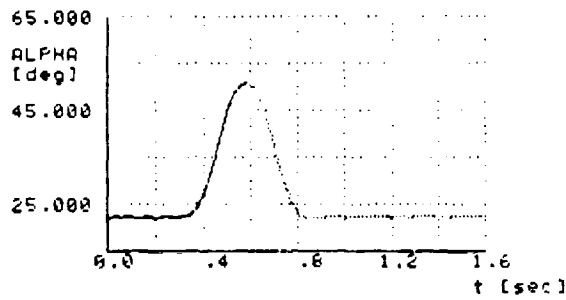
RUN = 3028  
 ALPHA<sub>0</sub> = 22 deg  
 ΔALPHA<sub>0</sub> = 32 deg  
 T = 500 msec



FIRST INPUT

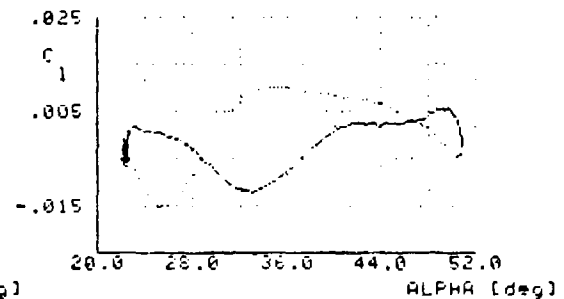
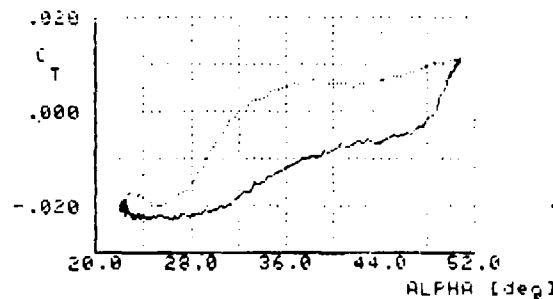
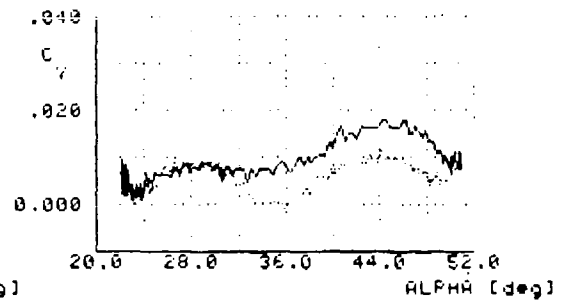
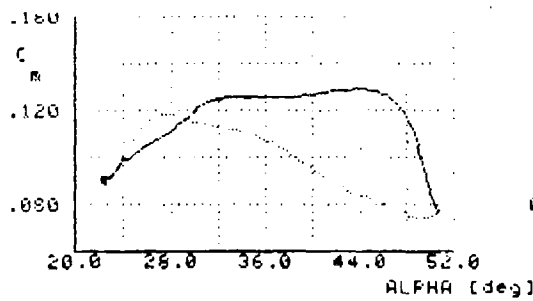
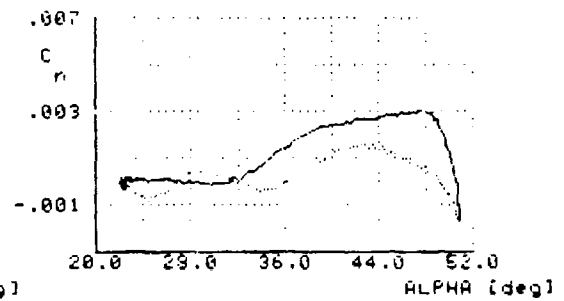
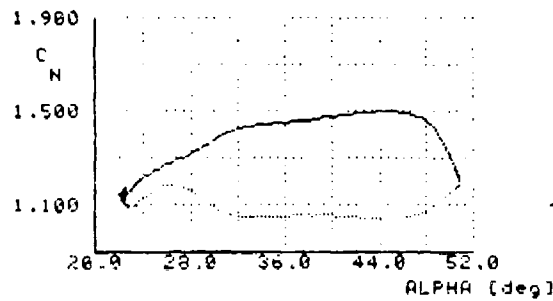


C2



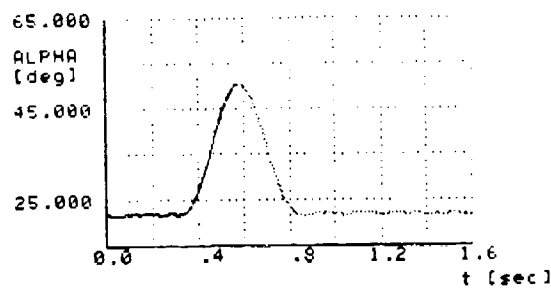
# (1-COS) INPUT

RUN = 3028  
 ALPHA<sub>a</sub> = 22 deg  
 ΔALPHA<sub>a</sub> = 32 deg  
 T = 500 msec



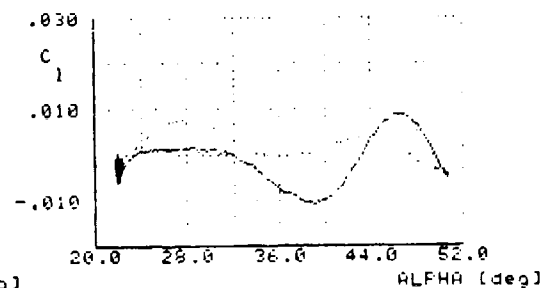
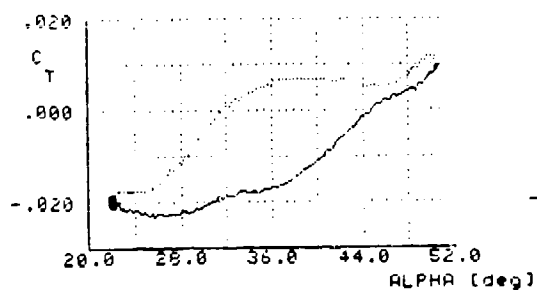
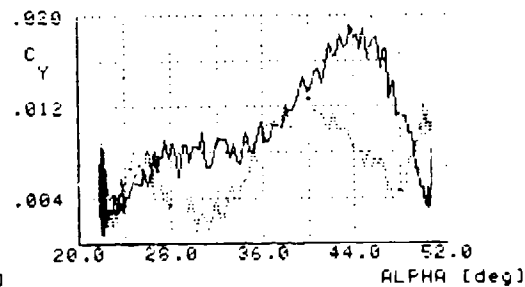
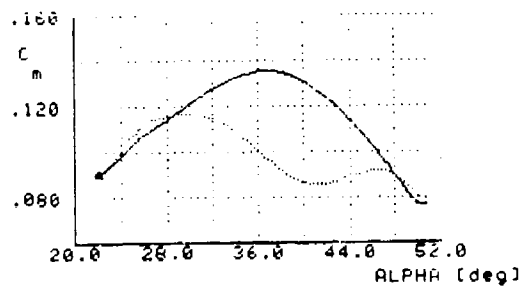
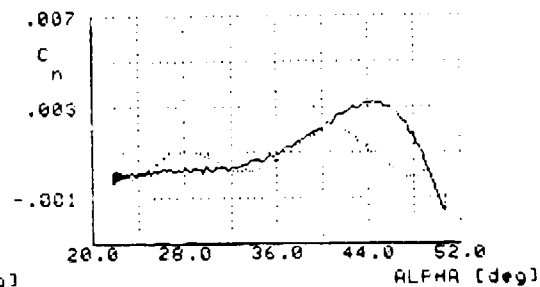
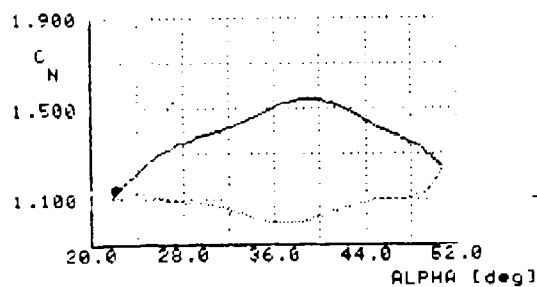
# SECOND INPUT

C3



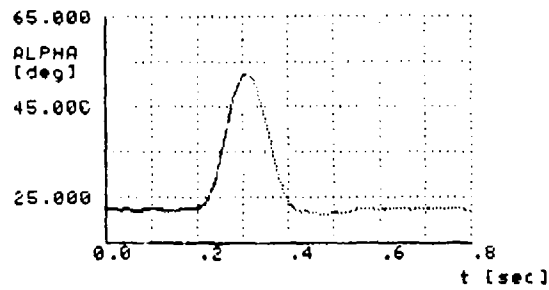
### (1-COS) INPUT

RUN = 3020  
 ALPHA = 22 deg  
 DALPHA = 32 deg  
 T = 500 msec



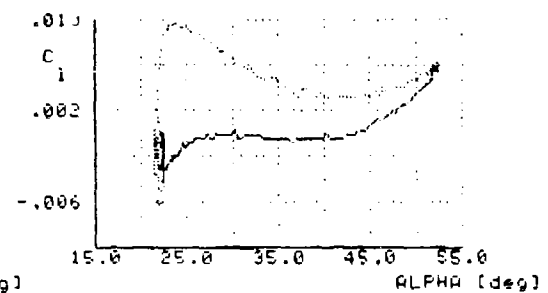
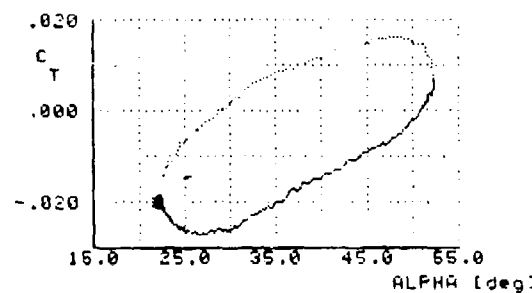
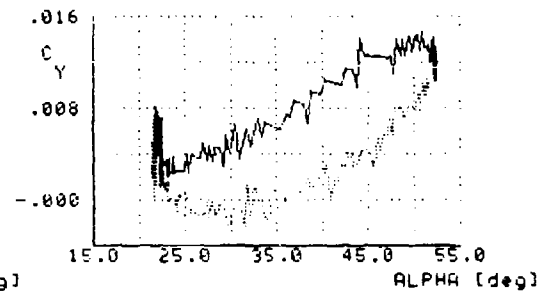
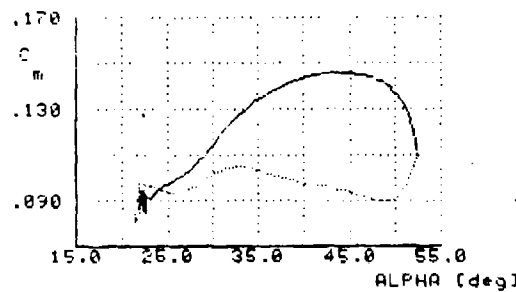
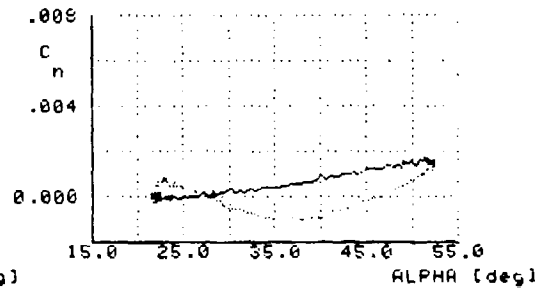
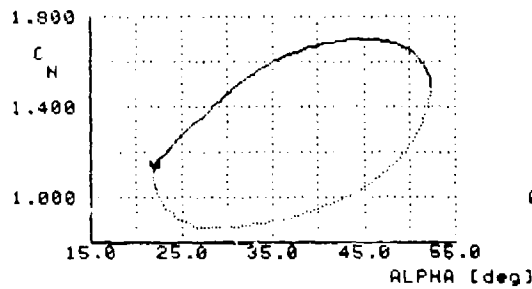
THIRD INPUT

C1



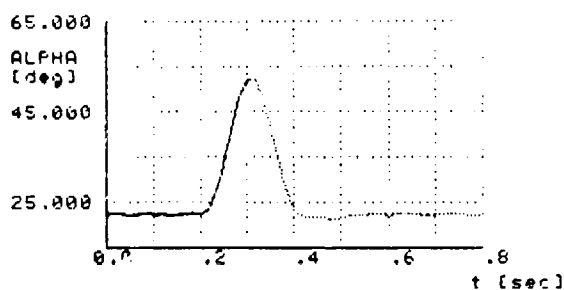
(1-COS) INPUT

RUN = 3831  
 ALPHA<sub>a</sub> = 22 deg  
 ΔALPHA<sub>a</sub> = 32 deg  
 T = 200 msec



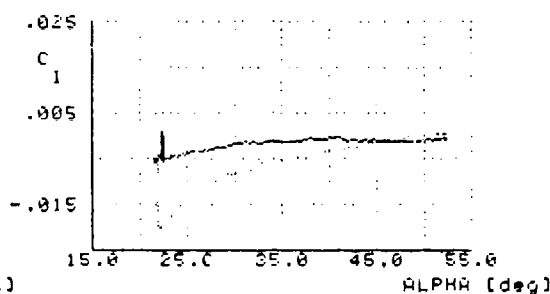
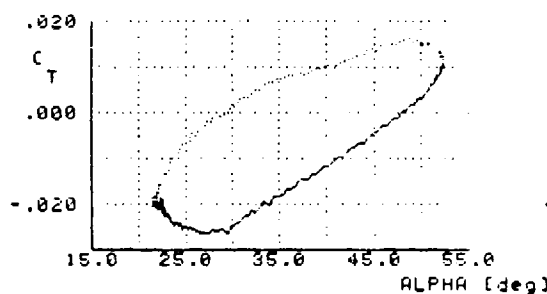
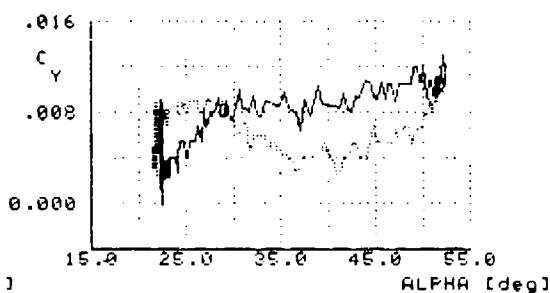
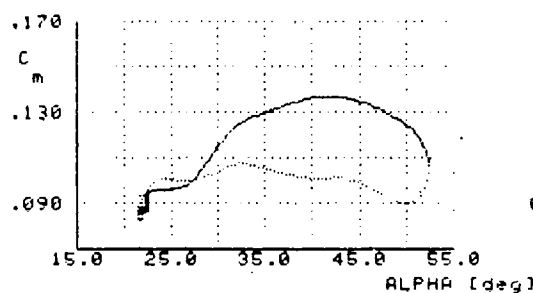
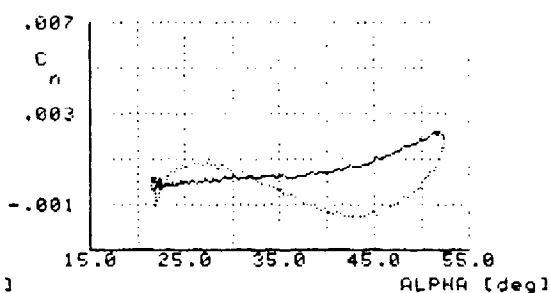
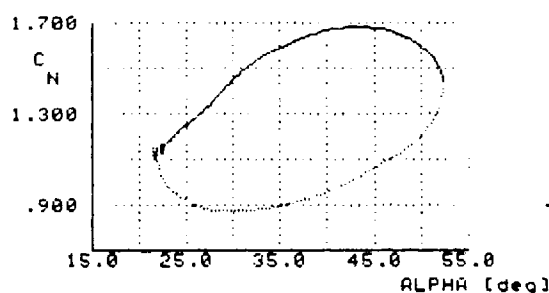
FIRST INPUT

C2



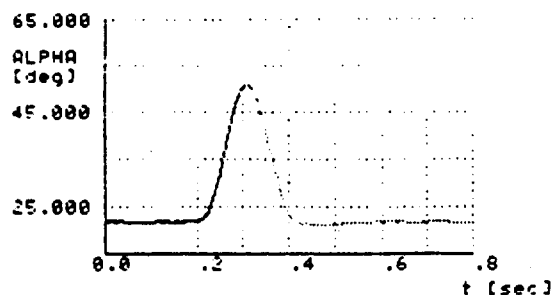
# (1-COS) INPUT

RUN = 3031  
 ALPHA<sub>1</sub> = 22 deg  
 DALPHA<sub>1</sub> = 32 deg  
 T = 200 msec



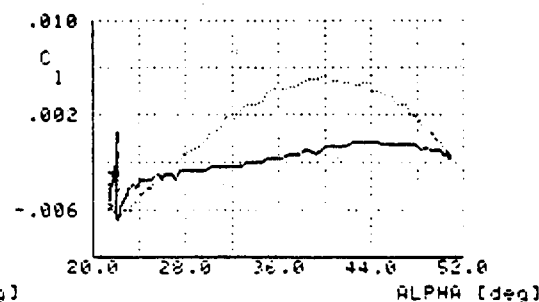
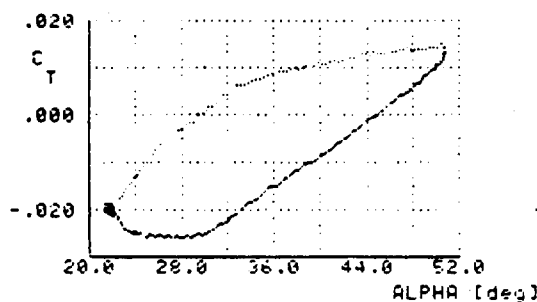
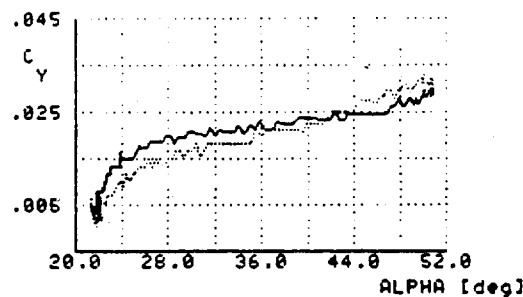
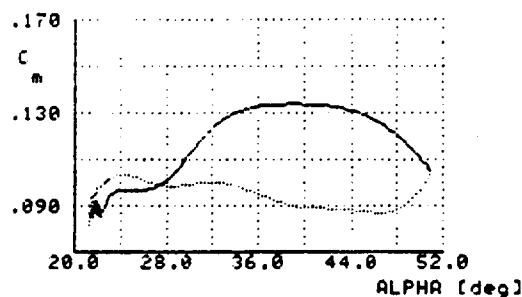
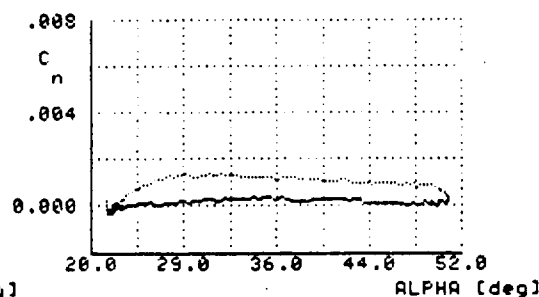
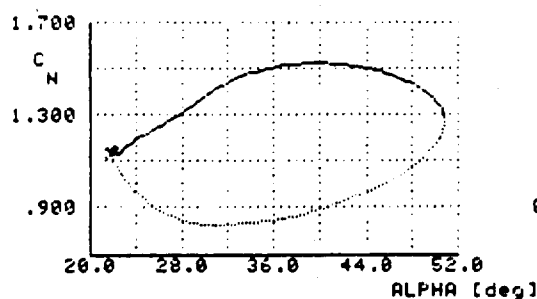
## SECOND INPUT

C3



# (1-COS) INPUT

RUN = 3031  
ALPHA<sub>1</sub> = 22 deg  
DALPHA<sub>2</sub> = 32 deg  
T = 200 msec



## THIRD INPUT